ANNUAL REPORT

by

Chief Engineer
S. A. LUBETKIN

to the

PASSAIC VALLEY SEWERAGE COMMISSIONERS

FOR THE YEAR

1973

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PASSAIC VALLEY SEWERAGE COMMISSIONERS
600 WILSON AVENUE
NEWARK, N.J. 07105
(201) 344-1800

February 28, 1974

Passaic Valley Sewerage Commissioners
600 Wilson Avenue
Newark, New Jersey

Gentlemen:

I herewith submit my annual report to the Commissioners for the year 1973. It is composed of three parts.

Part I is a series of special reports on various subjects that either have a bearing on the Passaic Valley Sewerage Commissioners' operations and future operations, or that may affect the residents of the Passaic Valley District. Some of the reports are repeats of reports that have been issued during the year, but they have been updated. These repeat reports are so indicated by a month in parenthesis which indicates the date of the original report.

Part II concerns discharges to the Passaic River or any of its tributaries within the Commissioners' policing area (from the Great Falls in Paterson to the Mouth of the River at Newark Bay) that were found to be polluting and that were terminated or eliminated during the year 1973. These former violations are, in a sense, a measure of the Commissioners success in their fight to remove pollution from the lower Passaic River.

Part III concerns polluting discharges that were still violating the law as of the end of 1973, with a summary of how they were detected, together with what has been done to date in the Commissioners' attempts to have them halted.

Very truly yours,

PASSAIC VALLEY SEWERAGE COMMISSIONERS

S. A. Lubetkin,
Chief Engineer

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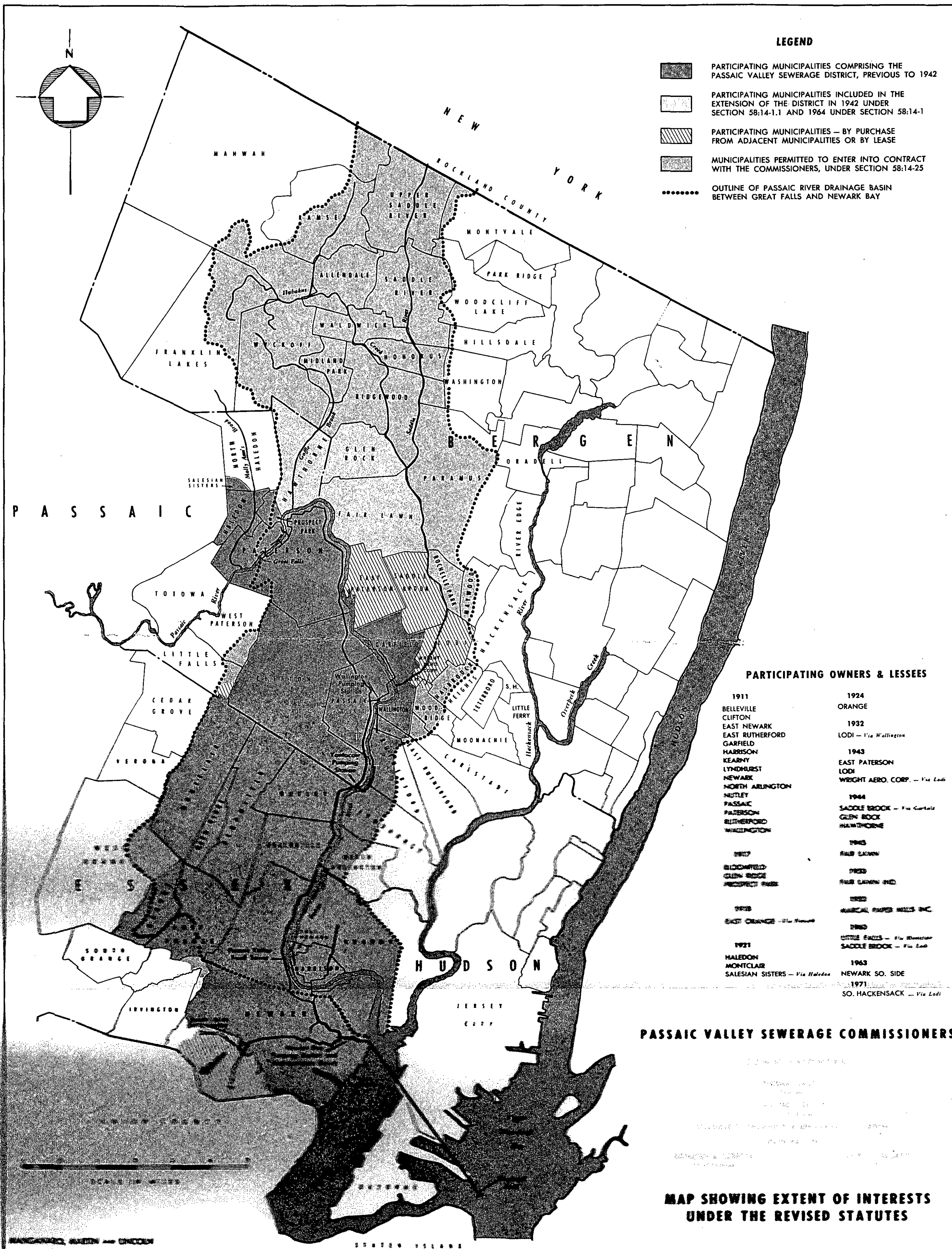
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LEGEND
PARTICIPATING MUNICIPALITIES COMPRISING THE PASSAIC VALLEY SEWERAGE DISTRICT, PREVIOUS TO 1942
PARTICIPATING MUNICIPALITIES INCLUDED IN THE EXTENSION OF THE DISTRICT IN 1942 UNDER SECTION 58:14-1.1 AND 1964 UNDER SECTION 58:14-1
PARTICIPATING MUNICIPALITIES – BY PURCHASE FROM ADJACENT MUNICIPALITIES OR BY LEASE
MUNICIPALITIES PERMITTED TO ENTER INTO CONTRACT WITH THE COMMISSIONERS, UNDER SECTION 58:14-25
OUTLINE OF PASSAIC RIVER DRAINAGE BASIN BETWEEN GREAT FALLS AND NEWARK BAY
NEW YORK
ROCKLAND COUNTY
MANWAH
RAMSEY
UPPER SADDLE RIVER
MONTVALE
PARK RIDGE
ALLENDALE
SADDLE RIVER
WOODCLIFF LAKE
HILLSDALE
WALDWICK
WYCKOFF
FRANKLIN LAKES
MIDLAND PARK
HOHOKUS
WASHINGTON
RIDGEWOOD
Ho-ho-kus
Saddle River
Goffle Brook
Molly Ann's Brook
NORTH HALEDON
SALESIAN SISTERS
HAWTHORNE
GLEN ROCK
BERGEN
ORADELL
PARAMUS
PASSAIC
HALEDON
PROSPECT PARK
FAIR LAWN
PATERSON
Great Falls
TOTOWA
Passaic River
WEST PATERSON
EAST PATERSON
SADDLE BROOK
ROCHELLE PARK
MAYWOOD
RIVER EDGE
HACKENSACK
Hackensack River
GARFIELD
LODI
WRIGHT AERO CORP.
LITTLE FALLS
CLIFTON
Wallington Pumping Station
PASSAIC
WALLINGTON
WOOD-RIDGE
HASBROUCK HEIGHTS
TETERBORO
S.H.
LITTLE FERRY
Overpeck Creek
CEDAR GROVE
MOONACHIE
VERONA
EAST RUTHERFORD
CARLSTADT
HUDSON RIVER
ESSEX
SOUTH ORANGE
HUDSON
IRVINGTON
NEWARK
JERSEY CITY
PARTICIPATING OWNERS & LESSEES
1911
BELLEVILLE
CLIFTON
EAST NEWARK
EAST RUTHERFORD
GARFIELD
HARRISON
KEARNY
LYNDHURST
NEWARK
NORTH ARLINGTON
NUTLEY
PASSAIC
PATERSON
RUTHERFORD
WALLINGTON
1921
HALEDON
MONTCLAIR
SALESIAN SISTERS – Via Haledon
1924
ORANGE
1932
LODI – Via Wallington
1943
EAST PATERSON
LODI
WRIGHT AERO. CORP. – Via Lodi
1944
SADDLE BROOK – Via Garfield
GLEN ROCK
HAWTHORNE
1963
NEWARK SO. SIDE
1971
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SPECIAL REPORT NO. 1

PROGRESS ON THE NEW FACILITIES

We are now occupying our new Administration, Control and Laboratory Building.

The construction work on the Head End Facilities (screens, grit chamber and incineration facilities) is proceeding, although behind schedule. The contractor now estimates work to be completed in June of 1974.

The work on the Chlorination Facilities was disrupted due to strikes by the plumbers and laborers, but is now completed.

Mr. Manganaro, the Commissioners' Consulting Engineer, has completed his Project Report. The report is a massive piece of work, which is better described by reproducing the Preface in this report (see pages 3 through 11).

Mr. Manganaro's report and recommendations were accepted by the Passaic Valley Sewerage Commissioners at their board meeting of May 29, 1973. The report, together with applications for Step 2 Grant, (grant for engineering to prepare plans and specifications), and an application for a loan, were submitted to the New Jersey Department of Environmental Protection and the U.S. Environmental Protection Agency on Monday, June 4, 1973.

This report was accepted by both the NJDEP and the USEPA on June 30, 1973 and the PVSC was awarded a Step 2 Grant in the amount of $12,502,770., which represents 75% of the estimated engineering cost of preparing the plans and specifications for the Commissioners' proposed new treatment facilities.

Although the PVSC is now proceeding with the engineering, we are told that no further grant for construction under present regulations*will be given, nor can construction start, until the PVSC has completed an infiltration study of, not only its trunk sewer, but of all tributary flow areas (see Infiltration/Inflow Report page 12).

* This has been changed by new regulations in the February 11, 1974 Federal Register.

In addition, the Environmental Assessment Statement will be needed. This has been contracted, however a problem has occurred in that the results of the N.J. Basin Plan and Mathematical Model of the Passaic River is needed for the Environmental Assessment. This information is still not available from the State as they are having problems with their contractor in obtaining the information.

Pre-treatment regulations, equitable rate cost recovery, industrial capital cost recovery, connection permit regulations, and monitoring requirements are being presently worked on by the PVSC staff and will be the subject of future Special Reports as the information is available.

The following description of the overall report as submitted to and accepted by the NJDEP and the USEPA will facilitate understanding of what is being attempted. The report comprises twenty-three (23) chapters.

Chapter I provides the background from the inception of the Passaic Valley Sewerage Commissioners by special act of the State Legislature in 1902, through the Stipulation and Court Orders, amended Court Orders, and Consent Orders, to the action taken by the Commissioners to date.

Chapter II provides a synopses of the reports prepared prior to this report, which either have direct or indirect bearing on the construction of the existing treatment facility and the interceptor and pumping stations. This Chapter also provides in summary form, the recommendations of the prior reports, including the recommendations which have been implemented.

Chapter III provides a population forecast by municipality to the year 2040, utilizing the U.S. Census figures to the year 1970, and also describes the project area and its land use. With the exception of the addition of North Haledon, the project area remains the same as for the year 1972.

Chapter IV provides the estimates for the tributary flows to the year 2040 based on the population forecast, surveys of industry, and evaluation of land use including future development on vacant lands.

Chapter V describes the existing interceptor system, and evaluates its hydraulic capacity with respect to present and future flows. This Chapter points to the need for additional interceptor capacity.

Chapter VI describes each component of the present treatment plant facility, evaluates the capacity of each as well as its adaptability to the proposed expansion for secondary facilities. It also provides an evaluation of the needed additional capacity of the components based on flows described in Chapter IV.

Chapters VII and VIII will provide a description of the needed additions and modifications to the interceptor system in the upper reach (Paterson to Clifton) and in the lower reach from Paterson to Newark, respectively. These chapters are not included in this presentation pending the results of infiltration studies on the local collection systems. However, the Interim Report on Additional Conduit Capacity dated April 1972 (revised May 1972) has been submitted to both NJSDEP and EPA.

Chapter IX provides an evaluation and recommendation for regulation of intercepted flow since some of the collection systems tributary to the PVSC area are of the combined type.

Chapter X presents the characteristics of the raw wastes as received at the existing Newark Bay Treatment Plant.

Chapter XI describes the extensive laboratory and pilot plant program and studies which were conducted for the purpose of generating basic data necessary for the selection of viable treatment processes. It also indicates the processes which did not meet the removal requirements; and establishes the criteria for the selection of the treatment process.

Chapter XII provides the rationale for the selection of the treatment process and defines the required design parameters.

Chapter XIII describes and provides layouts for the viable treatment processes and the recommended process. It also describes the components for the recommended treatment processes along with their integration with the existing plant components. Further, it describes the construction methods which will be required to maintain the existing plant in operation while the new treatment components are being constructed.

Chapter XIV indicates the need for additional outfall capacity, describes the various alternatives considered, and fully describes the recommended facility to provide the required additional outfall capacity.

Chapters XV and XVI describe present monitoring practices and the modifications required, including automatic river sampling stations to render monitoring activities more efficiently.

Chapter XVII describes in a preliminary fashion, the modifications and additions required at metering stations, along with sampling procedures required for providing basic data to be used in customer billing and for equitable cost recovery from industries.

Chapter XVIII describes procedures and billings which are necessary to implement the equitable cost recovery.

Chapter XIX provides a functional description of the computer programs, and the computer hardware required to secure data more efficiently on interceptor levels, meters, and river monitoring stations, and to more efficiently regulate overflows and pumping stations operations, and to optimize treatment plant operations.

Chapter XX will provide an examination of the treatment of excess combined flows to the river based on the cost-effectiveness of on-line treatment versus conveyance and treatment at the expanded Newark Bay Treatment Plant. This chapter is not included in this presentation pending the results of infiltration studies noted in Chapter VII above.

Chapter XXI provides a description of the personnel needs, and salary requirements necessary for the proper administration, operation, and maintenance of the proposed facilities.

Chapter XXII provides the estimated capital and annual costs of the facilities required for the recommended treatment process (excluding the cost for facilities relating to the additional interceptor capacity), and the elements for the required bond issue.

Chapter XXIII provides a timetable for the preparation of contract documents, and for construction broken down by contract.

The summary and conclusions of the study follow:

1. The Passaic Valley Sewerage Commissioners (PVSC) was formed as an agency of the State of New Jersey under a special Act of the State Legislature in 1902.

2. PVSC was formed for purposes of relieving pollution in the Passaic River and its tributaries between the Great Falls in the City of Paterson to the mouth of the river at Newark Bay.

3. Initially, fifteen (15) municipalities entered into contract on September 1911 with PVSC to construct an interceptor and treatment plant; by October 1942, eight (8) additional municipalities contracted with PVSC. Thus, there are twenty-three (23) owner municipalities.

4. During the period 1942 to 1968, six (6) additional municipalities joined the PVSC system as lessees; during this period the Marcal Paper Company and the Fair Lawn Industries, were added as lessees, and the Garden State Paper Company and the Wright Aeronautical Corporation were permitted to discharge wastes through Garfield and the Lodi connections.

5. In 1963, Newark's south side was added to the PVSC system through an interceptor which was constructed and paid for, and maintained and owned by the City.

6. In 1971, a portion of South Hackensack was added to the PVSC system via Lodi.

7. During the initial period from 1912 to 1939, most of the present facilities including grit chambers, main pumping station, sedimentation basins (Nos. 1, 2, and 3), head house, conduits, and outfall, were constructed to provide for primary treatment for the flows received.

8. A substantial addition was made in the 1956-1970 period primarily to increase pumping capacity, modernize the sedimentation basins, and to provide additional sludge storage facilities.

9. In response to the need for higher degree of treatment of the discharges in the New York Harbor, the Commissioners authorized in 1969 the required planning for initial construction of Head-End facilities to provide for a new grit and screening chamber, a grit incinerator building, and for chlorination, along with an Administration and Control Building. Construction of the Head-End facility is presently underway, and the Administration and Control Building is substantially complete.

10. Further, the Commissioners have authorized the preparation of this report to upgrade the remainder of the facilities to meet the new State and Federal standards of effluent quality, and have in addition authorized an Environmental Assessment Statement for the determination of the impact of the required facilities on the earth, water, and air resources.

11. Basic to the report, are studies of a project area, population forecast, industrial development, and land use, to determine projected tributary flows.

12. These studies disclosed that, with the exception of the addition of North Haledon, there will be no other municipalities to be added to the project area.

13. These studies also disclosed that the projections of the 1970 population of 1,200,000 will increase to approximately 1,300,000 people in the year 2000, and to approximately 1,400,000 people in the year 2040 when population saturation is expected to occur.

14. These studies further disclosed that there are over 3000 industries, of which approximately 80 contribute flows of over 0.1 mgd.

15. The collection systems of Paterson, Newark, East Newark, Harrison, Kearny, and Orange, are mostly of the combined type.

16. Assuming regulation of flows from the combined systems, the tributary flows in mgd are estimated as follows:

Year	Annual Average	Dry Weather Peak	Wet Weather Peak
1970	246	315	633
2000	299	379	678
2040	349	439	420

17. For the first phase of construction, the year 2000 was selected as the design year and the flows rounded to 300, 380, and 680 for annual average, dry weather peak, and wet weather peak flows.

18. Analysis of the existing intercepting system discloses that additional capacity is needed and that modifications are required to the existing regulating chambers to minimize the quantity of storm overflow into the river.

19. The New Jersey State Department of Environmental Protection (NJSDEP) and the Environmental Protection Agency (EPA) indicated that infiltration studies must be made of each municipal collection system. The studies will be done by consultants hired by the PVSC with the cooperation of the municipalities.

20. Pending the results of the infiltration studies, further determinations will be made relative to the flows indicated in paragraph 16.

21. Tentative approval has been given by NJSDEP and EPA for the flows shown in paragraph 16 for the design of the treatment plant facilities based upon modular construction, but design for the additional interceptor capacity must be deferred until infiltration studies are completed.

22. Based upon prior approval by NJSDEP and EPA, new Grit and Screenings Facilities, Grit Incinerator Facilities, Chlorination Facilities, and an Administration and Control Building, are in various stages of construction. All these units are adequate for the flows previously mentioned.

23. Examination of the existing treatment plant facilities discloses that additional capacity is required for all of the prime components and that principally due to the age and configuration of the sedimentation basins (Units Nos. 1, 2, and 3) and the need for additional capacity, these units must be demolished.

24. Detailed examination discloses that in terms of BOD_5 and SS, influent sewage averages to:

BOD_5	-	382 mg/l
SS	-	464 "

25. A minimum of 80% BOD_5 and SS removals were mandated by Court Order. Therefore, 90% (average) removals are required. Recent EPA policy on the definition of secondary treatment indicates that the effluent quality should not exceed:

	Monthly Average (mg/l)	Weekly Average (mg/l)
BOD_5	30	45
SS	30	45

26. Extensive laboratory and pilot plant testing was undertaken to generate data necessary for an evaluation of an efficient and dependable treatment process. The pilot plant testing program consisted of:

Activated sludge

Pure Oxygen

Physical-chemical

Rotating disc biofilters

Plastic media high-rate filters

All pilot plants were run on a steady-State, diurnal, and storm flow mode.

27. Of the processes tested, activated sludge and pure oxygen proved to be viable.

28. A step aeration process was mathematically computed from the activated sludge data. The evaluation of the step aeration also disclosed it to be viable.

29. Detailed studies of activated sludge, step aeration and pure oxygen disclosed that of the three, the pure oxygen process produced less sludge, is lower in horsepower requirements, is less in capital cost, less in annual cost, and provides better removals under varying flow conditions; therefore, pure oxygen is the recommended process.

30. Pilot plant testing was also performed with settling tubes and verti-flow baffles to determine whether greater overflow settling rates (in clarifiers) were possible without diminution of settling capabilities. Since results did not indicate better overflow rates, both were dropped from further consideration.

31. In order to minimize review time, an Engineering and Administrative Coordinating Committee was established on March 20, 1971. Meetings were held as needs required for the review of the chapters of this report as they were developed and to signal problems for immediate resolution. Thus, NJSDEP and EPA have been provided with reports generated from pilot plant programs and several of the chapters of this report (as they were developed).

32. Sludge treatment facilities were based upon 50% reduction of volatiles.

33. Of the three sludge treatment alternatives considered - aerobic digestion, anaerobic digestion, and heat-wet air oxidation - heat-wet air oxidation is the most considered viable process.

34. A comparative analysis was made of the disposal of sludge (after treatment) to sea and (after incineration) to land. This analysis indicated the economy of sea disposal. However, necessary land allocation has been provided for a sludge dewatering and incineration facility in the event that future regulations would so dictate.

35. Investigations disclosed that additional outfall facilities are required. Of the alternatives reviewed, the use of the existing New York Harbor outfall and the existing Newark Bay outlet with a new pumping station, is recommended. This alternative also requires an effluent pumping station, chlorine contact tanks, and chambers.

36. During the initial portion of the studies, the construction of a new upstream treatment plant was considered for the twofold purpose of relieving the present interceptor of excess loading and to augment Passaic River flows. Assimilation studies conducted for the applicable portion of the Passaic River, disclosed that the effluent quality required for such a treatment plant could not be economically accomplished. As a result, the needed modification and improvements in treatment were confined to the present Newark Bay treatment plant location.

37. As a result of the pilot plant studies and investigations, the following components are necessary for providing the required treatment:

Existing Components To Be Retained

Sewage	Sludge and Scum
Main Pumping Station	Sludge Storage Tanks
Influent, Effluent and Emergency Conduits	Sludge Thickeners
Newark Shaft	Sludge Pumping Station
New York Harbor and Newark Bay Outfall Facilities	Sludge Unloading Facilities

Components Under Construction

Grit and Screening Chamber Facility **
Head-End Incinerator **
Chlorination Facilities *
Administration and Control Building *

* Completed during 1973
** Expected to be completed 1974

37.(continued)

Recommended Principal Components

Sewage	Sludge and Scum
Influent Pumping Station	Gravity Thickeners
Primary Clarifiers	Flotation Thickeners
Oxgenation Tanks	Sludge Blending Tanks
Final Clarifiers	Sludge Treatment Facilities
Return and Waste Pumping Station	Sludge Supernatant Treatment Facilities
Outfall Facilities including	Sludge Storage Pumping Station
Effluent Pumping Station	Sludge Storage Tanks
Chlorine Contact Tank Chambers	Scum and Grease Incinerators
Non-Potable Pumping Station	Sludge Dock Extension

38. To provide land areas for the new treatment components approximately 52 acres are required; and approximately 11 acres for ash disposal. Included in the 52 acres is land allocated for a sludge incinerator and dewatering facility.

39. Since the Commissioners are responsible for the quality of the waters in the Passaic River and its tributary waters from Great Falls in Paterson to the mouth of Newark Bay, investigations so directed disclosed the desirability of installing automatic river sampling stations and computer facilities to generate data necessary for efficient monitoring and control.

40. To comply with EPA'a regulations for "user charges" and "pretreatment standards", PVSC has initiated and is maintaining an "on-going" industrial waste survey which will produce data required for both programs.

41. In view of the extensive meters (and the new meters to be added) used on the PVSC system, and the need to comply with EPA's "equitable cost recovery", a procedure was developed for sampling at these metered locations and for computer application to provide "customer billing".

42. To comply with the equitable "cost recovery", a procedure was developed for equitable charges to industry.

43. To comply with EPA's regulations on the "Environmental Assessment Statement", the Commissioners have separately contracted (March 20, 1973) with the Environmental Assessment Council, New Brunswick, New Jersey, for the preparation of the necessary statement, investigations for which are underway.

44. To provide the personnel required to operate and maintain the proposed facilities, organizational charts were prepared.

45. To maintain present levels of treatment while construction is underway, it was necessary to stage construction into two phases. Thus, the existing facilities will remain in use during the Phase 1 period. The oxygenation tanks, final clarifiers, and other units constructed during Phase 1, will be placed in service at their completion, and the plant operated without primary settling. In the Phase 2 period, the existing sedimentation basins will be demolished and replaced with new primary clarifiers and upon completion of the units constructed in Phase 2, full treatment will be commenced.

46. A period of two years is required for the preparation of contract documents, and three years are scheduled for construction. Assuming prompt reviews of this report, the recommended facilities in Phase 1 can be made operational by late 1978, and of final facilities by late 1981.

SPECIAL REPORT #2 -(OCTOBER, 1973)

INFILTRATION/INFLOW

The PVSC is proceeding as rapidly as possible with its program of upgrading and enlarging its system. However, before PVSC will be eligible for any Federal Construction Grant money under the 1972 Water Pollution Control Act, it must complete an Infiltration/Inflow Study of not only its own trunk sewer, but of all of the tributary municipal sewers.

All municipalities have been informed of this matter and a meeting was held on September 12, 1973, where not only PVSC engineers were available for information, but representatives of the U.S.E.P.A. were present to answer questions.

The PVSC has hired a Consulting Engineer to do the first part of this study, and the municipalities have been requested to pass resolutions which will allow PVSC engineers to enter local sewers in order to make the necessary study (at no liability to the local municipality). The municipalities have also been asked to pass a resolution requesting employees and municipal engineers to cooperate and let PVSC have access to existing sewer drawings. This has been done by the municipalities.

The first part of this study is an Overview Report, which will lay out the PVSC system and divide it into many mini-systems with key manholes. Each mini-system shall be defined as having combined or separate sewers, as having sewer maps or needing mapping,and estimates shall be given for each mini-system as to the cost of doing Phase I and Phase II of the Inflow/Infiltration study. With this information (which is expected by the end of February or the beginning of March) the PVSC will request a Step 1 grant from the U.S.E.P.A. so as to make the required study.

When the report and Grant application is approved,(which must be rapidly if we are to stay on schedule), PVSC will proceed immediately with the next step in this study. Under regulations, in order not to hold up our project, this step and the one afterward evaluating the infiltration from a cost effective standpoint must be completed by June 1975. This will not be done without immediate review and approval of the first and then the second steps.

SPECIAL REPORT NO. 3

EQUITABLE USER CHARGES AND INDUSTRIAL COST RECOVERY SYSTEM

PL 92-500, known as the Federal Water Pollution Control Act Amendments of 1972, requires that no Grant may be approved (after March 1, 1973) unless the applicant has (or will) adopt a system of charges to assure that each recipient of waste treatment services, as determined by the Administrator, will pay its proportionate share of the cost of operation and maintenance (including replacement) of any waste treatment services provided by the applicant (Equitable User Charges); and that the applicant has made provision for the payment to such applicant by the industrial users of the treatment works (as determined by the Administrator) which is allocable to the treatment of such industrial waste to the extent attributable to the Federal share of the cost of construction (Industrial Cost Recovery)(Section 204(b)1).

The Act also states (Section 204(b)2) that the Administrator (USEPA) shall issue guidelines on the above, reflecting factors that influence the cost of treatment, including strength, volume and delivery flow rate characteristics.

The regulations, generally speaking, are covered by paragraphs 35.905-6, 35.905-7, 35.905-8, 35.905-26, 35.925-11, 35.925-12, 35.928, 35.935-13 and Appendix B,as printed in the Federal Register, Vol. 39, No. 29, February 11, 1974.

The presentation of this system of charges is not to be considered an endorsement of these EPA requirements, since PVSC feels that the cost of administering such an all inclusive system is far greater than the benefit that will accrue to the public, when we consider the fact that these additional costs to industry, plus the administrative costs, are passed on to the public in both increased product costs and increased treatment costs. The PVSC does believe that those large industries that have strong wastes should be made to pay extra, but feels that the application of these surcharges should be made to a selected group, whereby the return justifies the expense of monitoring, special billing, etc. PVSC also feels that the Authority is in the best position to say where the line should be drawn. To make a general ruling requiring billings to individual users, rather than our present system whereby the municipality handles the matter in its tax structure, may appear to be equitable, but becomes awkward, cumbersome, expensive, and far from effective.

However, since rules and regulations require that such a system of user charges and industrial cost recovery be instituted, and many have asked how it would affect them, I thought it best to show how such a system might work. I hope I am not too optimistic in the actual application of details.

EQUITABLE USER CHARGES AND INDUSTRIAL COST RECOVERY SYSTEM

The legislation concerning the above would have to embody something similar to the following:

1. Passaic Valley Sewerage Commissioners shall have a right to establish pretreatment standards, so that any industry which discharges a waste which adversely effects the Commissioners' treatment, sewer system, pumping station, or personnel working therein, alone or in combination with any other wastes, may be required to pretreat this waste to the extent that the waste is no longer damaging. The Commissioners shall be the sole judge of what is damaging and to what extent pretreatment is necessary.

2. The Commissioners' personnel shall have the right to enter into any industrial establishment in order to inspect waste facilities to determine whether pretreatment is required, and, or whether the proper pretreatment is given to the waste.

3. There shall be a monetary fine of so much a day for any delay in preventing Commission personnel from making the inspection.

4. There shall be two general classes of users, as follows:

(A) Industrial User as defined in Paragraph 35.905-8 in the February 11, 1974 Federal Register, which states:

"Any nongovernmental user of publicly owned treatment works identified in the Standard Industrial Classification Manual, 1972, Office of Management and Budget, as amended and supplemented, under the following divisions:

(a) Division A - Agriculture, Forestry, and Fishing
(b) Division B - Mining
(c) Division D - Manufacturing
(d) Division E - Transportation, Communications, Electric, Gas, and Sanitary Services
(e) Division I - Services.

A user in the Divisions listed may be excluded if it is determined that it will introduce primarily segregated domestic wastes or wastes from sanitary conveniences."

You will note this includes what we consider commercial users also.

(B) Domestic Users, which will be all other users.

5. The Industrial User Classification shall be further broken down into two classes, as follows:

(A) Special Industrial User - Any user may be classified as a Special Industrial User (for the purpose of the sewer charge), if:

(1) it uses water, in addition to purchased water (such as well water or river water) which enters into the sewerage system.

(2) Its sewage has a strength above normal sewage (as defined by PVSC), so that a strength surcharge must be applied.

(3) The user consumes in its product, or discharges to the river, a significant portion of its water, so that the water purchased does not truely represent its sewer use, and therefore, the user requests to become classified as a "Special Industrial User".

(4) Any other user that requests to be classified as a Special Industrial User and agrees to abide by the regulations concerning Special Industrial Users.

(B) Normal Industrial User - Any other industrial user not classified as a Special Industrial User.

6. The Commissioners shall have the right to require the Special Industrial User to automatically sample their waste with equipment paid for by the industry but under the control of the Commissioners, in order to determine if proper pretreatment is being accomplished, and in order to determine volume and strength parameters.

7. The Commissioners shall have the right to establish equitable user charges based on a formula established by them.

8. Generally speaking, the equitable user charges will be based on a "normal" sewage, which shall be established by the Commissioners by a resolution. All industrial wastes stronger than the normal shall pay a surcharge for the extra strength.

9. The municipality will be required to collect from all users of its sewers, and the money so collected shall be earmarked for paying the Commissioners' bills.

10. The sewer charge shall actually be billed to the owner of the property by the municipality and shall become a lien against the property, equivalent to a tax lien if unpaid.

11. Payments and interest charge at the rate of 1% per month shall be paid by the property owner for delinquent bills.

12. The way these regulations would work is as follows:

(A) Before January 15th of each year, the Commissioners shall make an estimate to each municipality as is presently done (therefore, contracts need not be modified). At the same time, the PVSC shall establish the cost for normal sewerage and the cost parameters for strength surcharge.

(B) In approximately March of each year, the Commissioners shall make up a list of charges for Special Industrial Users. The charge cost for each Special Industrial User will be separated as to volume and strength, and the list shall be given to the municipality, wherein each industry uses the sewer.

(C) The municipality, with the cost factor for normal sewage given to it by PVSC, shall bill each user. This bill can be part of the water bill and may use the water consumption of each Domestic User and Normal Industrial User as being considered as the sewage use for that user. Therefore, the factor times the water consumption can be billed to each user by the municipality.

(D) The billing to the Special Industrial User shall be in two parts, that for normal use based on the volume of the Special Industrial User's discharge (as measured at the Industrial User's plant or obtained through any other agreed upon equitable method of establishing the sewer use), plus a surcharge for excessive strength (as defined by the PVSC).

(E) In addition, all Industrial Users (both normal and special) shall pay an amount to the PVSC (through the municipality) to reimburse the Commissioners for that part of their construction program which is funded by a Federal Grant (Industrial Cost Recovery). 50% of the monies obtained from Industrial Cost Recovery must be paid back to the Federal Government. 80% of the remaining 50% must be put in a fund by the PVSC to be held for expansion or reconstruction of the treatment works and 20% of the remaining 50% may be used as PVSC deems fit (probably to reduce the annual cost of operation).

In order to show how this works, the following is an example wherein we have three fictitious cities, Alpha City, Beta City, and Gamma City, wherein three industries are located in Alpha City, two industries are located in Beta City, and no industries in Gamma City.

The following assumptions are made:

The total flow at the plant for the year was 50 million gallons per day, or 18,250 million gallons for the year, of which Alpha City contributed 25 million gallons per day, Beta City 15 million gallons per day, and Gamma City 10 million gallons per day. The average suspended solids at the plant was 350 mg/l, and the average C.O.D. at the plant was 600 mg/l. Analyses of plant operation indicated that approximately 40% of the cost was due to volume, approximately 35% of the cost was due to suspended solids, and the remaining 25% of the cost was due to oxygen demanding material (C.O.D.).

The total cost of operations at the plant (including Bond Debt Service) is assumed at $1,825,000.00.

Assume the Authority sets the following standards:

Normal Sewage shall be defined as that having a suspended solids content of 300 mg/l and a C.O.D. of 500 mg/l. Any sewage of a greater strength than normal shall pay the surcharge. The surcharge will be for all suspended solids and C.O.D. above normal.

Analysis made of the Authority's operations and costs:

Volume = 40% of cost = $40/M.G.
S. S. = 35% of cost = $35/M.G.

Average S.S. = 350 mg/l

$$\text{Cost/1,000 lb. of S.S.} = \frac{35 \times 1{,}000}{8.3453 \times 350} = \$11.983/1{,}000 \text{ lb. S.S.}$$

C.O.D. = 25% of cost = $25/M.G.

Average C.O.D. = 650 mg/l

$$\text{Cost/1,000 lb. of C.O.D.} = \frac{25 \times 1{,}000}{8.3453 \times 650} = \$4.609/1{,}000 \text{ lb. C.O.D.}$$

Standards set by Commissioners:

Allow 300 mg/l as average suspended solids for Normal Sewage
Allow 500 mg/l as average C.O.D. for Normal Sewage

Assume the following Special Industrial Users are in the district. Also assume samplings of their flow indicate the following average characteristics:

	Flow (M.G.D.)	Suspended Solids mg/l	C.O.D. mg/l
Located in Alpha City:			
Industry A	5	450	1,000
Industry B	0.05	400	1,000
Industry C	3	200	450
Located in Beta City:			
Industry D	2	350	1,400
Industry E	0.4	700	2,600

The following are examples of calculations for industrial surcharges as per previous assumptions:

Industry A:

Flow = 5 M.G.D.; 450 mg/l of S.S.; 1,000 mg/l of C.O.D.

Susp. Solids Surcharge:
450 mg/l less 300 (allowed) = 150 mg/l excess S.S.
150 X 8.3453 X 365 X 5 = 2,284,526 lbs. of excess S.S.
At cost of $11.983/1,000 lbs. = 11.983 X 2284.526 = $27,375.47

C.O.D. Surcharge:
1,000 mg/l less 500 (allowed) = 500 mg/l excess C.O.D.
500 X 8.3453 X 365 X 5 = 7,615,086 lbs. of excess C.O.D.
At cost of $4.609/1,000 lbs. = 4.609 x 7,615,086 = $35,097.93

Surcharge To Industry A $62,473.40

Industry B:

Flow = 0.05 M.G.D.; 400 mg/l S.S.; 1,000 mg/l of C.O.D.

Suspended Solids Surcharge:
400 mg/l less 300 (allowed) = 100 mg/l excess S.S.
100 X .05 X 365 X 8.3453 = 15,230 lbs. of excess S.S.
At cost of $11.983/1,000 lbs. = 11.983 X 15.230 = $182.50

C.O.D. Surcharge:
1,000 mg/l less 500 (allowed) = 500 mg/l excess C.O.D.
500 X .05 X 365 X 8.3453 = 76,151 lbs. excess C.O.D.
At cost of $4.609/1,000 lbs. = 4.609 X 76.151 = $350.98

Surcharge to Industry B $533.48

Industry C:

Flow = 3 M.G.D.; 200 mg/l of S.S.; 450 mg/l of C.O.D.

Suspended Solids Surcharge:
200 mg/l is less than the 300 mg/l allowed; therefore,
there is no suspended solids surcharge - - -

C.O.D. Surcharge:
450 mg/l is less than the 500 mg/l allowed; therefore,
there is no C.O.D. surcharge - - -

There is no surcharge for excess strength to Industry C

Industry D:

Flow = 2 M.G.D.; 350 mg/l of S.S.; 1,400 mg/l of C.O.D.

Suspended Solids Surcharge:
350 mg/l less 300 (allowed) = 50 mg/l excess S.S.
50 X 2 X 8.3453 X 365 = 304,603 lbs. of excess S.S.
At cost of $11.983/1,000 lbs. = 11.983 X 304.603 = $3,650.06

C.O.D. Surcharge:
1,400 mg/l less 500 (allowed) = 900 mg/l excess C.O.D.
900 X 2 X 8.3453 X 365 = 5,482,862 lbs. of excess C.O.D.
At cost of $4.609/1,000 lbs. = 4.609 X 5,482.862 = $25,270.51

Surcharge to Industry D $28,920.57

Industry E:

Flow = 0.4 M.G.D.; 700 mg/l of S.S.; 2,600 mg/l of C.O.D.

Suspended Solids Surcharge:
700 mg/l less 300 (allowed) = 400 mg/l excess S.S.
400 X 365 X 8.3543 X 0.4 = 487,366 lbs. of excess S.S.
At cost of $11.983/1,000 lbs. = 11.983 X 487.366 = $5,840.11

C.O.D. Surcharge:
2,600 mg/l less 500 (allowed) = 2,100 mg/l excess C.O.D.
2,100 mg/l X 365 X 8.3453 X 0.4 = 2,558,669 lbs. excess COD
At cost of $4.609/1,000 lbs. = 4.609 X 2,558,669 = $11,792.91

Surcharge to Industry E $17,633.02

A summary of the surcharges is as follows:

In Alpha City:	Surcharge
Ind. A	$62,473.40
Ind. B	533.48
Ind. C	- - -
	$63,006.88

In Beta City:	Surcharge
Ind. D	$28,920.57
Ind. E	17,633.02
	$46,553.59

Total Monies Received from Special Industrial Users on excess strength:

From Alpha City	$63,006.88
From Beta City	46,553.59
	$109,560.47

This amount is subtracted from the total cost; therefore, costs attributed to Normal Sewage is $1,825,000.00 (total cost) less $109,560.47 (Surcharge), or $1,715,439.53.

This $1,715,439.53 represents a cost of

$$\frac{1,715,439.53}{18,250 \text{ M.G. (total flow)}} = \$93.9967/\text{M.G.}$$

Thus, billing to the municipalities is as follows:

Municipality	Flow M.G.	Per Cent Of Flow	Normal Sewer Charge	Excess Strength Surcharge	Annual Charge	1st Half Payment Billed
Alpha	9,125	50%	$857,719.76	$63,006.88	$920,726.64	$460,363.32
Beta	5,475	30%	514,631.86	46,553.59	561,185.45	280,592.73
Gamma	3,650	20%	343,087.91	- - - -	343,087.91	171,543.95
	18,250 M.G.		$1,715,439.53	$109,560.47	$1,825,000.00	$912,500.00

At the same time the Authority informs the municipalities that the rate for sewage is $93.9967 per million gallons, or 70.3144 cents per 1,000 cubic feet.

The municipality, using the above rate, shall bill each Domestic User and each Normal Industrial User based on the User's water consumption and the above rate. This is easily done, since water user bills are on computers and it is very simple to add a second charge to the water bill (a sewer charge) by putting in the factor and sending a combined water and sewer bill. In the cases of Paterson, Passaic, Clifton and Prospect Park, where the individual user pays directly to the Passaic Valley Water Commissioners, arrangements can be made, whereby they will make such a billing for the municipalities. In all cases, an additional charge can be added to take care of the cost of billing. In the case of the Special Industrial User, to the excess strength surcharge will be added the normal sewage charge as follows:

	Total Flow M.G. Per Year	Normal Flow Charge	Excess Strength Surcharge	Total Use Charge
In Alpha City:				
Ind. A	1,825.	$171,543.98	$62,473.40	$234,017.38
Ind. B	18.25	1,715.44	533.48	2,248.92
Ind. C	1,095.	102,926.39	- - -	102,926.39
	2,938.25	$276,185.81	$63,006.88	$339,192.69
In Beta City:				
Ind. D	730	68,617.59	28,920.57	97,538.16
Ind. E	146	13,723.52	17,633.02	31,356.54
	876	$82,341.11	$46,553.59	$128,894.70

The Authority will give the information to each of the municipalities, so that the municipalities may in turn bill the Special Industrial Users the amounts due from these users.

The total amount of money received from all of the users may be more or less than the amount due to the Authority, due to one or more of the following reasons:

1. Infiltration into municipal sewers
2. Storm water during rains
3. Charges to users for water not reaching the sewer
4. Exfiltration
5. Overflows from combined sewers, etc.

It will be the responsibility of the municipality to make up any difference (which is expected to be small) from its general tax revenue, or by adding a service charge to the above (the method will be at the discretion of the municipality). If there is an excess of funds from this item after payment to the Authority, the municipality may use this money as a credit to the costs of operating their internal sewer systems.

In addition, there will be a Capital Cost Recovery which, by Federal Law, must be paid by all Industrial Users (Normal and Special) to reimburse the Authority for the Federal Grant portion of its construction. In our particular example, we will assume that the Federal Grant was in the amount of $54 million dollars. We will further assume that the rated capacity of the treatment plant is 60 million gallons per day. Thus, the Grant comes to $900,000.00 per million gallons daily rating of the plant. In accordance with Federal regulations, industry must pay back its share, but they are allowed to prorate the cost over a thirty year period (being charged no interest). Thus, this will come to

$$\frac{\$900,000.}{30} = \$30,000. \text{ per m.g.d. per year, or}$$

$$\frac{\$30,000.}{365} = \$82.19178 \text{ per m.g. for each year.}$$

Thus, the following is due from the Special Industrial Users:

Ind. A	1,825 X 82.19178	=	$150,000.00
Ind. B	18.25 X 82.19178	=	$1,500.00
Ind. C	1,095 X 82.19178		$90,000.00
Ind. D	730 X 82.19178	=	$60,000.00
Ind. E	146 X 82.19178	=	$12,000.00
Total Capital Cost Recovery From Special Industrial Users		=	$313,500.00

In addition, let us suppose that in the various towns there were car washes, manufacturers, etc. that were Normal Industrial Users by definition, which had waste not stronger than normal, and the volume of their waste was equivalent to the volume of water consumed.

Each municipality must collect from each Normal Industrial User for the capital cost recovery at the rate of $82.19178 per million gallons, or 61.4836¢ per thousand cubic feet, which rate will be given to each municipality by the Authority. This again is a factor that can be added to the water bill, but these funds must be kept separate from the other funds, and must be sent to the Authority.

Let us assume that when this is properly done, in our example, that $207,000.00 was collected from the Normal Industrial Users. Thus, with the $313,000.00 collected from the Special Industrial Users, we have a total of $520,000.00 received on Capital Cost Recovery from Industrial Users.

By law 50% of this, or $260,000.00, must be returned to the Federal Government. Of the remaining $260,000.00, 80% or $208,000.00 must be put in a Reserve Account by the Authority to be used solely for eligible costs of expansion or reconstruction, (40 CFR, 35.928-2). The remainder of this amount, or $52,000., may be used as the Authority sees fit. Thus, this may be used to reduce operating costs.

The previous is an example of how the Equitable User System and Industrial Cost Recovery System may work in a system similar to the PVSC. Of course, PVSC is actually much more complicated, since we estimate approximately 400 industries will be classified as Special Industrial Users, and maybe 5,000 industries as Normal Industrial Users. Thus, in order to efficiently compute and operate such a Cost Recovery Program it will be necessary to computerize the billing set-up. We also believe that many of the "industries" are too small to efficiently be put into the recovery classifications, and we hope that we can convince the Federal Government to change its regulations, so that only those industries are included, wherein the monies collected are greater, by a certain factor, than the cost of establishing rates and making such collections.

SPECIAL REPORT NO. 4
SLUDGE DISPOSAL

The controversy about ocean disposal of sludge continues to intermittently erupt into the public limelight, as it should, until the issues are properly defined and the problem settled.

We are a democracy, and as such, we should do the public bidding - since it is the public who pays. It pays in taxes and money to do what it wants, and it pays indirectly in other losses when what is done takes away a public asset. The asset may be beaches, highways, shellfish or the very air we breathe.

The real problem is to properly educate the public so that it is in a position to intelligently evaluate its alternates on any given subject, so that he isn't, in essence, paying twice, once in cash and a second time in ecological degradation in an area of which he may not have been aware.

We must have the facts, we must give the proper weight to that which is either desirable or necessary, and then we must evaluate. But we must be careful and make such evaluation complete, including the evaluation of alternates. Only after such a complete assessment are we in a position to intelligently express an opinion as to what is to be done.

Unfortunately, there is a hue and cry to halt ocean dumping, this despite the fact that ocean dumping, per se, has not been found guilty of adversity. We admit that ocean dumping of the wrong type or the wrong material is harmful, but instead of aiming at a complete halt, let us expend our energies in correcting that which is wrong, if we can.

First to aid our analysis let us itemize what is said by various people, (rightly or wrongly) about ocean disposal of sewage sludge.

1. Sludge contains excess heavy metals which leach into water and could be taken up into food cycle.
2. Sludge contains excess toxic metals, such as chlorinated hydrocarbon or petroleum products, which are inhibitory to the local flora or fauna.
3. There could be a depletion of the dissolved oxygen due to the organic material in the sludge.
4. There is a possibility of disease being transmitted by pathogenes in sludge through food chain or through bathing.

5. Nutrients in sludge increase adverse growths such as "Red Tide".

Now let us list alternates to ocean disposal in our metropolitan area. We must emphasize metropolitan area since we are forced to recognize the enormous volume involved compared to the very small open land available for the types of disposal done in many inland areas.

1. Incineration - Despite the best air cleaning equipment presently available, air pollution will rear its ugly head and will be quite considerable, in view of the volume involved. In addition, we must dispose of the ash, and furthermore, fuel and power are needed for the incineration and air control equipment.

2. Make a product such as fertilizer - With the industrial heavy metal and other toxic materials, the fertilizer would not be desirable, and if we solved these industrial contaminant problems, we have also solved two of the ocean disposal complaints. In addition, with possible pathogenes in its fertilizer, there might be limited use and the market for it in this area is much smaller than the volume of which we must dispose.

3. Land disposal - Where? The logistics of transporting the large volume (5 million tons per year or approximately 450 large trailer tank cars per day) is mind boggling. And this volume, according to the EPA, may very well triple with new plants going on the line and existing plants going into secondary treatment. And what about the fuel and pollution caused by the exhaust of the vehicles and wear of tires on the roads while transporting this material? The problem of controlling the leached material must also be considered. This does not appear feasible in this area.

In addition, generally speaking, costs of any method other than ocean disposal is in the order of eight to ten times the cost of ocean disposal. We realize that cost is a secondary item, that the ecology comes first; but it should be considered when it comes to comparing the costs to, say the shell fish industry, and should be taken into account when comparing the additional costs of removing clams and having them purged clean in an artificial clam farm area.

With all of the above in mind,what can we do that will aid the environment? The answer, we believe, is to treat the sludge. We do not mean digestion, which, we feel, does little, but rather a heat process similar to Portius or the Low Pressure Modified Zimpro. We are not endorsing either process but are just showing possible alternates. They would have the following advantages.

1. The high heat would disinfect the sludge so that pathogenes would not be transmitted through ocean disposal.

2. There would be a reduction of some of the organics (possibly 50%) and the highly volatile fractions,such as the hydrocarbons (oil), would be destroyed. Thus many of the organic toxic materials would no longer exist to any extent in the sludge.

3. The control of heavy metals to satisfactory levels would have to be done by requiring industrial pre-treatment at the source of significant quantities of these metals. We cannot yet tell whether such a control would be effective enough but we know we can improve the present sludge.

4. The remaining material should be an asset to the ocean, being nutritional and should increase ocean productivity. As to the problem of Red Tide, there has been no proof that the sludge disposal does increase its abundance, but even if so, just as fertilizer being food for weeds does not prevent a farmer from fertilizing, we can still fertilize the ocean. The farmer controls his weeds in another manner, so we should control the Red Tide if deemed necessary and still get the asset of increased nutrition into the food chain.

When all of this is analyzed, logic brings us to the inescapable conclusion that ocean disposal of a properly treated sludge is the best way to proceed with present day technology. It is a form of recycling into the food chain by fertilizing the ocean and increasing its productivity and the only unresolved criticism is that of local oxygen depletion due to organics. Since this depletion is local and does no real harm, certainly we can establish what

nature itself has done in many areas, namely, an anaerobic population establishing itself to slowly stablize any organics that reach the bottom.

We would like to comment on the proposed Sludge Disposal Permit which requires monitoring of the disposal area (FR 223.1 (f)) by the applicant. We believe this to be a mistake for many reasons.

1. We feel the EPA or Corps of Engineers is better equipped to do the necessary monitoring just as they are presently doing. For individual authorities to be forced to do such a thing would be a tremendously costly duplication of effort. The hiring or buying of the necessary equipment alone is a financial undertaking equivalent to building a small treatment plant. If it is necessary for the authorities to bear the cost of such monitoring, it still can more efficiently be done by the EPA who in turn, if they desire, can bill each of the users (including the Corps of Engineers for its Dredging Spoils) its proportionate share.

2. The problem of credibility should be considered. If the permittee makes a report, the public will take it with a grain of salt since the permittee has an "ax to grind", while if the monitoring is done by the EPA the public will have more confidence in the results.

3. We know that the sludge itself will have to change in quality in the future. What we find out today will have little or no relationship to the action of a properly treated sludge on our environment when disposed of properly in the ocean. Adverse reports on the untreated or improperly treated sludge at this time might prejudice the entire ocean disposal operation when it may very well be the best ecological way to go.

4. The regulation concerning monitoring is at the discretion of the Administrator. We believe it would be to the benefit of all concerned that the EPA take over the monitoring and that this requirement be modified accordingly.

SPECIAL REPORT NO. 5

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM - PERMITS

All point source discharges into the waters of the United States are now to be regulated by the Federal Permit System. Anyone now discharging should have applied for a permit on or before April 16, 1973. This Special Report is given to inform all industries, municipalities, authorities, etc., that discharge any liquid, directly or indirectly into any tributaries of the Passaic River or the Passaic River itself, that they must apply for a permit.

Although the act says "navigable waters", the regulation defines "navigable waters" as including tributaries of navigable waters; or lakes, rivers or streams which are utilized by travelers for recreational or other purposes; or where fish or shell fish are taken; or which are utilized for industrial purposes by industries in interstate commerce (or in other words, practically all waters). In fact, we were told unofficially that if a match stick can float in it, and the match stick can reach the ocean, no matter how circuitous the route, a Federal Permit is needed to discharge into the stream. This also means industries that discharge into storm sewers, that thence discharge into a stream. Each municipality must get a permit for its storm sewers which contain combined sewer overflows. Even emergency overflows or outlets not normally used require a permit if it is possible that they would be used for waste water (not storm water alone).

40 CFR 126 printed in the April 19, 1973 Federal Register, and 40 CFR 125 printed in the May 22, 1973 Federal Register, gives the details of the permit regulations.

For industrial discharges, there are two types of forms that may be filled out for an application for a permit. They are:

(A) Standard Form C for industries or commercial establishments that:

1. Discharge from the facility a total volume of more than 50,000 gallons on any day of the year;
2. Discharge material which affects the waters of any other State other than the State of origin; or,
3. Discharge a waste which contains or may contain toxic pollutants.

(B) Short Form C for other manufacturing establishments, or Short Form D for other services, or those in the wholesale and retail trades or other commercial establishments.

(For municipalities there are Standard Form A and Short Form A)

The Permits when issued will give the effluent limitations on the discharges and will require the permittee to monitor the discharge and make reports to the U.S.E.P.A., so that it can be determined that the permit effluent standards are met.

All industrial or commercial establishments in our area are warned that they must apply for permits for any discharges that reach the streams (even indirectly through storm sewers).

For further information on this item, they may contact Mr. James Sellar, Chief of Permits Administration Branch, U. S. Environmental Protection Agency, Region II, 26 Federal Plaza, New York, New York, 10007, telephone (212) 264-2881.

SPECIAL REPORT #6 - (NOVEMBER, 1973)

PVSC POLLUTION CONTROL METHODS

The Passaic Valley Sewerage Commissioners are vested with jurisdiction to enforce the pollution laws as they apply to discharges directly or indirectly into the waters of the Passaic River, at any point between the Great Falls in the City of Paterson and the mouth of said river at Newark Bay, or into the waters of any of the tributaries of said river, which empty into it between said points, as per New Jersey Statutes Annotated 58:14-7 and 58:14-8.

In order that the Commissioners may find and identify pollutions, the Passaic Valley policing area is divided into districts, with a River Inspector assigned to each district. The River Inspectors' duties require them to patrol the river and check all outlets discharging therein. If an outlet is obviously polluting, such that the pollution can be detected by eye, the River Inspector may inform the polluter immediately to halt such pollution. He must also take a sample of the discharge and submit it to the Commissioners' laboratory for analysis. He then makes a written report, which is transmitted to the Superintendent of River Inspection, General Superintendent, Director of Sanitation Control, and Chief Engineer. The River Inspector is also required to routinely sample all other discharges, not obviously polluting, so that the laboratory may check whether, in truth, the apparent innocuous discharges are non-polluting. If the laboratory reports that the sample is in violation, the River Inspector must write a report and follow up on any pollution abatement procedures.

In addition, the Commissioners maintain a river sampling crew, which, approximately once a week, makes a tour of the river and some of the tributaries, taking samples, checking for dissolved oxygen, and bringing the samples back for laboratory analysis. The same crew also, approximately once a week, visits other sewage treatment plants that discharge into the waters which are under the jurisdiction of the Commissioners. These samples are also delivered to the laboratory for analysis to determine whether the operations of these treatment plants are satisfactory.

The PVSC also maintains a small boat, under the direction and operation of the General Superintendent, which intermittently patrols the section of the river between the Dundee Dam and the Newark Bay, weather permitting, and attempts to locate, visually, other sources of possible pollution.

The Commissioners maintain a well equipped laboratory for the analysis and processing of the samples delivered to them. All samples are classified as either polluting or non-polluting, and reports are sent to the Chief Engineer, General Superintendent, Superintendent of River Inspection, and the Inspector assigned, as to the results of the laboratory analysis, so that follow-ups can be made.

The PVSC also keep records on the industries within its jurisdiction. All industries are coded and are indexed as to:

1. Industries with large volume of water consumption.
2. Industries using well water and/or river water.
3. Major industrial sewage contributors.
4. Industries with toxic materials or heavy metals in waste.
5. Industrial mercury users.
6. Industries applying for EPA outlet permits.
7. Standard industrial classification numbers.
8. Industries moved from PVSC jurisdiction.
9. Major industries by municipalities.
10. Outlets to the Passaic River.

Arrangements have been made with the USEPA so that PVSC receives notices of all applications for an outlet discharge in its area. The Chief Engineer reviews these applications and the River Inspector is directed to obtain samples from any discharges which might be questionable. A letter is then written to the USEPA making any statements that might be applicable.

According to Federal Regulations monitoring of discharges to the streams must be done by the discharging industry and the permit states that duplicate signed copies of these reports and all other reports required shall be submitted to the Regional Administrator and the State. The PVSC has requested that, within its jurisdictional area, it also receive copies of these reports. To date the PVSC have received no reports nor have they received any written reply to its communication, but the Chief Engineer had been told verbally that this would be made part of the outlet permit requirements. If and when these reports come to the PVSC, they will be checked, become a part of the industrial files and, if any pollution occurs, appropriate action will be taken.

Approximately once a week, the Chief Engineer has a conference with the staff. At the conference, nicknamed "Pollution Solutions", all the reports of the Inspectors and the laboratory are reviewed and discussed in detail. Also discussed are other relevant items, such as possible new industries locating in the area; industries closing down; industries making application for discharge permits; industrial surveys, etc. General attendance at this conference consists of the Chief Engineer, Deputy Engineer, General Superintendent, Director of Sanitation Control, Superintendent of River Inspection, Industrial Liaison, and many times the Superintendent of Plants.

On all pollutions which are not corrected within a short period of time (generally a week), certified letters are sent by the Chief Engineer to the responsible parties, informing them of the pollution, and directing them to cease pollution at once. Copies of such letters are sent to the Commissioners, Chief Counsel, General Superintendent, Supervisor of River Inspection, Assistant Supervisor of River Inspection, Director of Sanitation Control, and the River Inspector of the district wherein the pollution emanates.

Once a month, the Chief Engineer makes a written report to the Commissioners, consisting of three parts. Part I consists of Special Reports, concerning either the operation of the PVSC, or some event that would be of interest or importance to the Commissioners, either concerning pollution, operation or any other item that might affect the PVSC. Part II consists of reports on all pollutions that were eliminated during that particular month. Part III consists of reports on all discharges that are still polluting as of the end of the month.

Besides being sent to the Commissioners and the Chief Counsel, copies of these reports are sent to all of the municipalities, all of the polluters, the USEPA, the U.S. Attorney, NJDEP, N.J. Attorney General, various newspapers, various agencies and ecology groups, libraries and any others that have expressed interest in receiving these reports.

At their Board Meetings, the Commissioners review the report, and on any pollutions which they deem require legal action, the Chief Counsel, by resolution, is authorized to proceed. The Chief Counsel may write letters or may institute suit to have the pollution halted. Progress on these matters referred to Counsel are reported to the Commissioners by Counsel. Progress on these abatements are included in the monthly report by the Chief Engineer.

The Chief Engineer also prepares an Annual Report summarizing the operations of the PVSC and reviewing all pollutions and abatements of the previous year. This report receives the same distribution as the monthly reports.

Many times where a pollution involves either the State or Federal Enforcement Agencies, the PVSC withdraws and allows the other officials to proceed (so as not to have duplication of effort) however, the PVSC will report any change in status of the pollution in its monthly and annual reports.

In addition, the PVSC maintains a pictorial record of the Passaic River banks and outlets and will proceed shortly to obtain the same for all the tributaries.

It is hoped that in a few years a more sophisticated automatic sampling system can be installed. Much will depend on Federal and State Funding.

SPECIAL REPORT NO. 7 - (MARCH, 1973)

FIGURES DON't LIE, BUT ....

When is the truth, the truth? If we are factual but incomplete, are we telling the truth? If we use statements that are literally so, but because of semantics give a false impression, are we telling the truth? If we do these things through ignorance rather than maliciousness are we less guilty of disseminating falsities or are we less responsible for the consequences? These are questions that have plagued the PVSC for some time. We are sorry about this and wish to educate and help the public, by attempting to recite the truth - the whole truth.

The case of heavy metals brings out some of these points. It has been noted that in the effluent of the PVSC to New York Bay is "... an average of 800 lbs. of copper, 1800 lbs. of chromium, 830 lbs. of nickel and 5200 lbs. of zinc per day ...."

Are these large figures? What many do not realize is that the PVSC handles an enormous amount of waste ... approximately two thousand million or two billion (2,000,000,000) pounds of water per day. That means that one part per million of an item represents approximately 2000 pounds per day and that the total amount of heavy metals discharged by PVSC is less than that allowed in drinking water in the World Health Organization Standards. For example, W.H.O. allows 5 p.p.m. of zinc in its drinking water standards. Thus the same amount of zinc as allowed in drinking water would represent over 10,000 pounds of zinc per day in PVSC effluent, much more than the 5200 pounds per day estimated in the effluent.

It is interesting to note, that at a recent workshop of sanitary engineers, a question was asked, from the audience, "It is an established fact that a certain amount of zinc consumption is necessary for male virility. Is the EPA trying to establish birth control with its very restrictive standards?" Maybe the question was facetious and I am not minimizing the problem of heavy metals as this problem is very real; however, to attempt to reach zero discharge is not only unrealistic with present day technology, but unnecessary and impossible.

Another illusion we have given ourselves is that industry is the entire culprit and source of heavy metals and, if it were so, we could more easily control this problem ... and I don't want to minimize it - it is a problem. But think of the following:

1. Where does the mercury and silver go when you spit out filling residue while in your dentist's chair?

2. What happens to the silver, etc., from amateur photographers as they develop film?

3. Where does the residue from washing hands and clothes go after polishing silver?

4. What happens to the copper, chromium, aluminum, etc., that is rubbed from pots and pans when they are scoured? What about the steel wool used to scour?

5. Does the zinc, lead, aluminum, etc., disappear when we wash a paint bursh?

6. What happens to lead and all automotive pollutions on our highways when it rains?

As to the first item, the PVSC had recently investigated, and there are traps manufactured that can be installed by dentists, that would recover a significant amount of this amalgam that is lost, but many dentists have not installed them. I believe this should be required by law, as mercury and silver are two of the metals that are known hazards (perhaps our legislature will pick this up and pass appropriate legislation).

As to the remaining, remember PVSC services approximately 1,300,000 people (besides industry). If only one in ten scoured some pots and removed only one one thousandth of a pound (including the loss of the steel wool), this could account for 130 pounds per day of metal. One thousandth of a pound per person per day comes to 1300 pounds per day (without industry).

So you see, when you multiply by the large number of people involved, minuscule amounts suddenly seem very large.

SPECIAL REPORT NO. 8

THE PASSAIC RIVER - 1973

During 1973 the flow in the Passaic River averaged 1,857 cubic feet per second, as reported by the U.S. Geological Survey at Little Falls in New Jersey, as compared to 1,939 c.f.s. for 1972. The breakdown by months, is as follows:

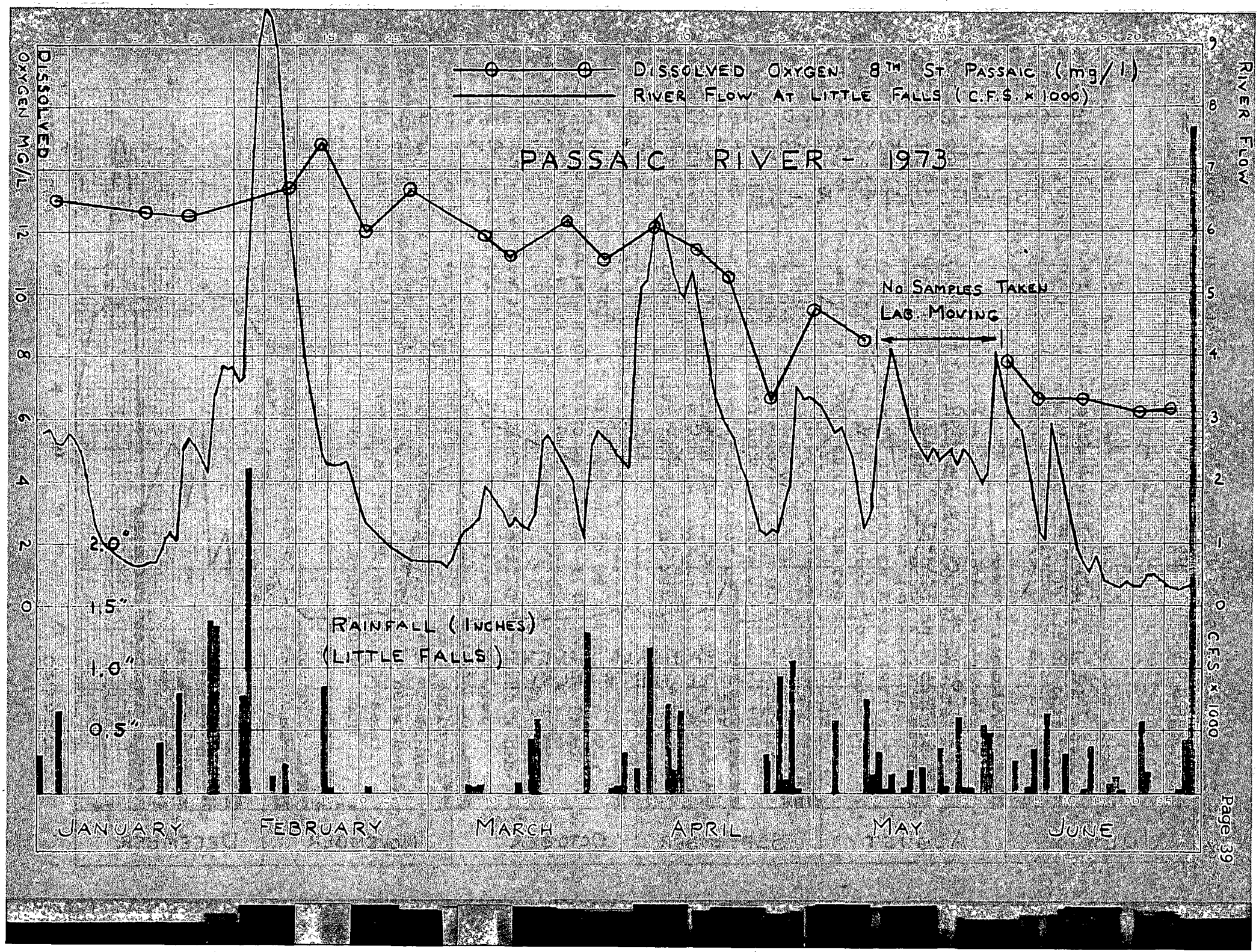
Month	1972 Flow (C.F.S.)	1973 Flow (C.F.S.)
January	1,043	1,947
February	1,297	3,792
March	3,167	1,730
April	1,477	3,518
May	2,710	2,695
June	4,172	1,173
July	1,969	1,834
August	228	1,030
September	203	246
October	410	344
November	3,138	737
December	3,450	3,239
Average for Year	1,939	1,857

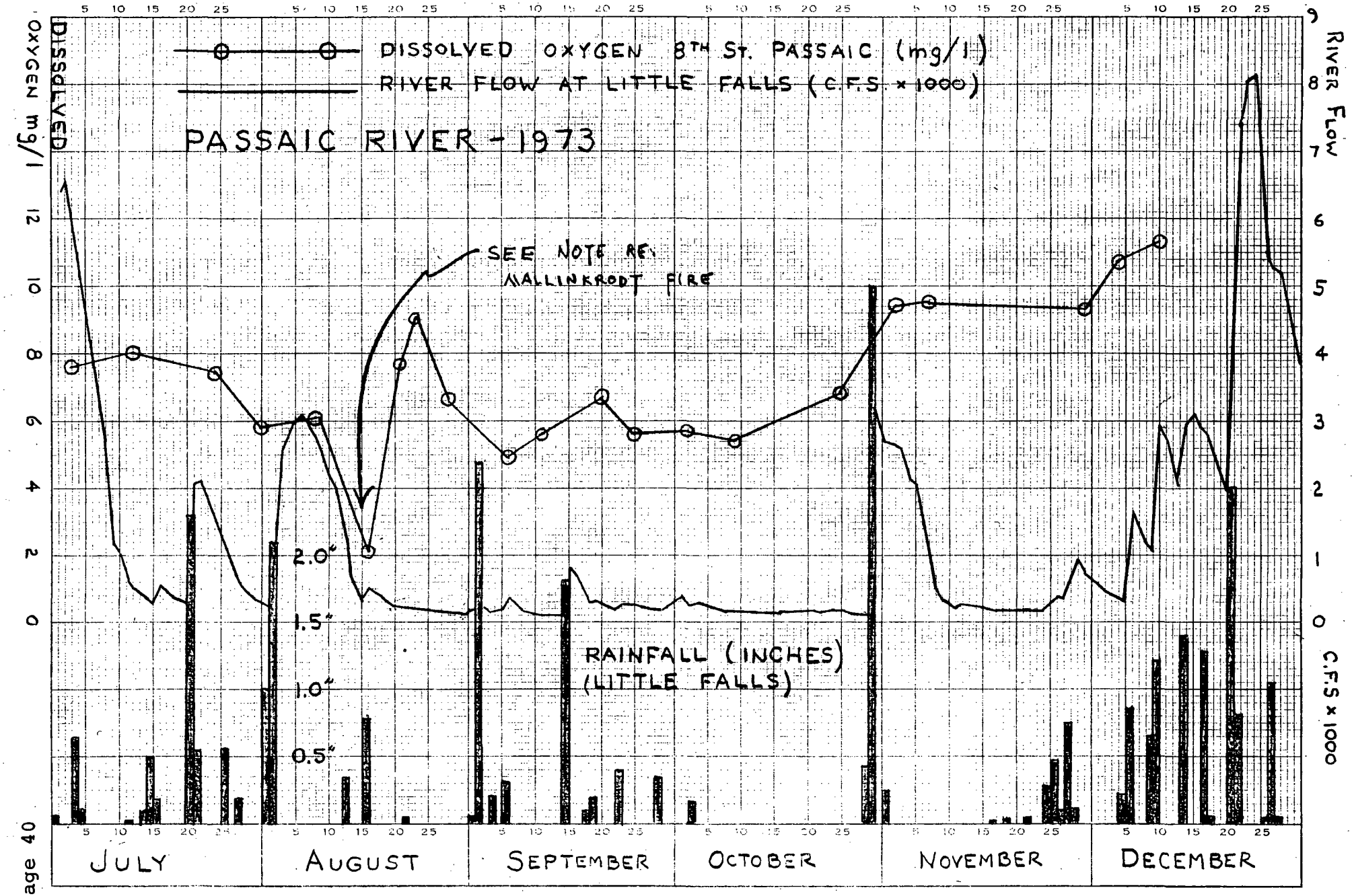
As can be deduced from the above, there were floods in February, April, May and December. In addition, although the average for the month was not exceptionally high,we had floods at the end of June 1973.

The dissolved oxygen in the river was excellent and the river was in good condition except for a tremendous amount of debris coming down from upstream and floating back from Newark Bay on incoming tides.

The graphs on the following pages show the rainfall and river flow (as measured at Little Falls, N.J.), together with the dissolved oxygen measured two feet below the surface at Eighth Street, Passaic, (about mid-point in the PVSC jurisdiction).

It can be noted that the dissolved oxygen in the river at Eighth Street, Passaic, was generally satisfactory. An exception occurred on August 16 and 17 when the aftereffect


DISSOLVED OXYGEN 8TH ST. PASSAIC (mg/l)
RIVER FLOW AT LITTLE FALLS (C.F.S. x 1000)
PASSAIC RIVER - 1973
No Samples Taken
Lab. Moving
DISSOLVED OXYGEN MG/L.
RIVER FLOW
C.F.S. x 1000
RAINFALL (INCHES)
(LITTLE FALLS)
2.0"
1.5"
1.0"
0.5"
JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE



of the large fire of August 14-16, 1973 which destroyed the Mallinkrodt Chemical Co., Washine Division Plant in Lodi, New Jersey (See Violation and Elimination, page 79 of this report) caused the D.O. to dip to 2.2 mg/l. However, by August 21 it had recovered to 7.7 mg/l.

Oil had been one of the greatest headaches in 1972 and still continued as a problem; however, during 1973 we are happy to report that progress was made in halting a chronic source in Millbank Brook (See Violation and Elimination, Raywin Realty Co., page 96 of this report) in April 1973 and another oil problem in Weasel Brook (See Violation and Elimination, Pantasote Co., page 88 of this report) in August 1973.

Debris in some of the tributaries is a problem, causing backflow and occasional flooding. We have written to the NJDEP in an attempt to get a clarification of who is responsible for clearing the debris from small non-navigable streams (particularly where they are piped and go underground); however as of this report we have received no reply.

At this point I wish to express my surprise at the amazement of the many people who have spoken to me during the year saying, "Say, did you know there are large fish in the River. I thought the river was so polluted that there were no fish."

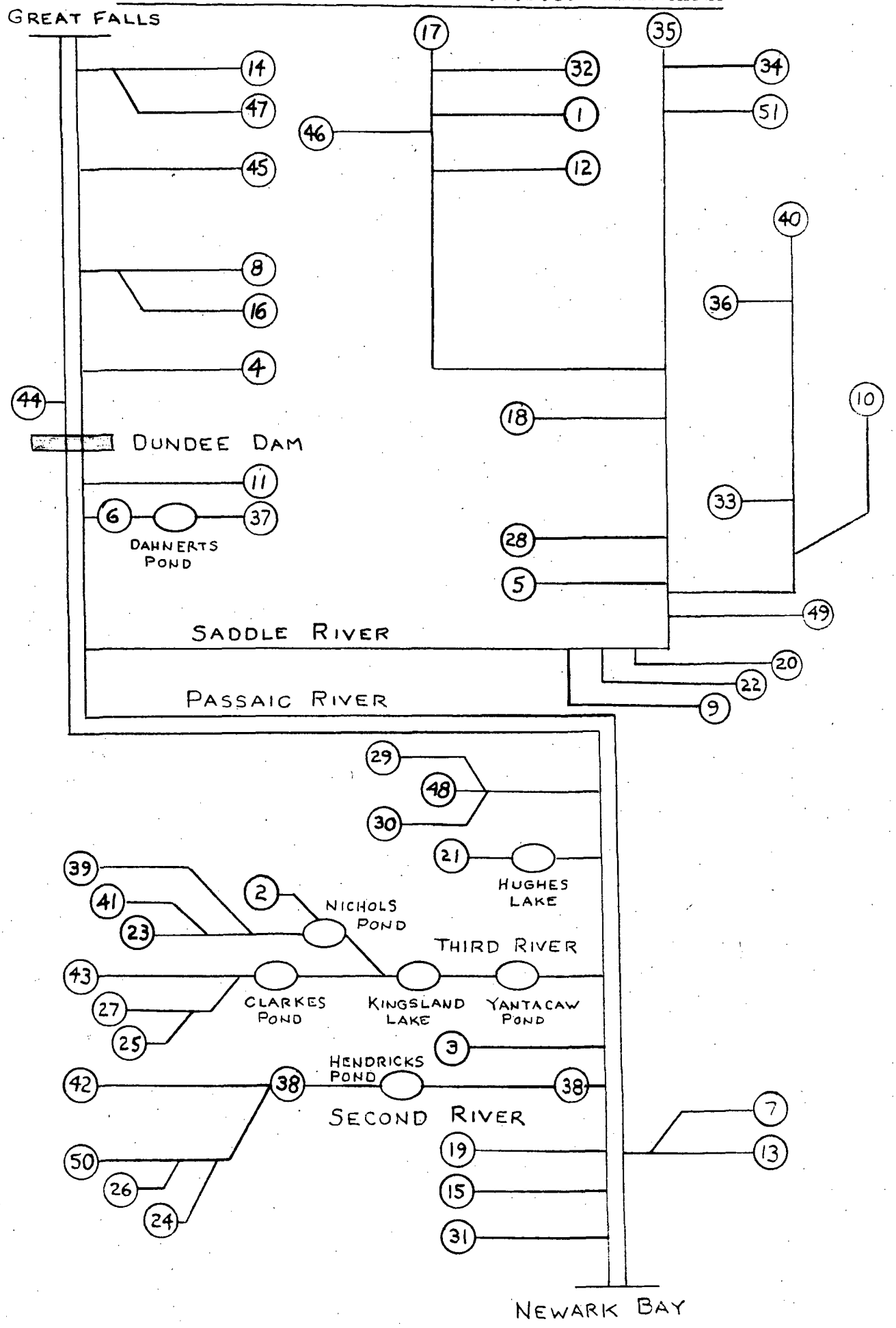
This shows how effective is the Federal Government's campaign of calling the Passaic River one of the 10 dirtiest. We know this is not so. We know our river has many faults but we also know we have many dedicated citizens and employees who are working hard to keep the river clean. Yes, there are fish and yes there is pollution, but the pollution is relatively minor except in the lower reaches at Newark, and the Passaic River is nowhere near as polluted as many people have been lead to believe.

The following is a schematic diagram of the Passaic River and its tributaries in the PVSC area.

PASSAIC RIVER TRIBUTARIES
BETWEEN
THE GREAT FALLS AND
THE MOUTH AT NEWARK BAY

NO.	NAME OF TRIBUTARY	
1	Allendale Brook	Enters Ho-Ho-Kus at Waldwick
2	Allwood Brook	Enters Nichols Pond at Nutley
3	Bearskin Culvert	Enters Passaic River at Nutley
4	Beaverdam Brook	Enters Passaic River at Fair Lawn
5	Coalberg Brook	Enters Saddle River at Saddle Brook
6	Dahnerts Brook	Enters Passaic River at Garfield
7	Dead Horse Creek	Enters Franks Creek at Kearny
8	Diamond Brook	Enters Passaic River at Fair Lawn
9	Felds Brook	Enters Saddle River at So. Hackensack
10	Fernway Brook	Enters Sprout Brook at Paramus
11	Fleischers Brook	Enters Passaic River at Garfield
12	Franklin Turnpike Brook	Enters Ho-Ho-Kus at Waldwick
13	Franks Creek	Enters Passaic River at Kearny
14	Goffle Brook	Enters Passaic River at Hawthorne
15	Harrison Creek	Enters Passaic River at Newark
16	Henderson Brook	Enters Diamond Brook at Glen Rock
17	Ho-Ho-Kus Brook	Enters Saddle River at Fair Lawn
18	Jordon Brook	Enters Saddle River at Fair Lawn
19	Lawyer's Ditch	Enters Passaic River at Newark
20	Lodi Brook	Enters Saddle River at Lodi
21	MacDonalds Brook	Enters Hughes Lake & Passaic River at Passaic
22	Millbank Brook	Enters Saddle River at Lodi
23	Nichols Brook	Enters Third River at Nutley
24	Nishuane Brook	Enters Wigwam Brook at Orange
25	Notch Brook	Enters Pearl Brook at Clifton
26	Parrow Brook	Enters Wigwam Brook at Orange
27	Pearl Brook	Enters Third River at Bloomfield
28	Pehle Brook	Enters Saddle River at Saddle Brook
29	Pershing Brook	Enters Weasel Brook at Clifton
30	Plogs Brook	Enters Weasel Brook at Clifton
31	Plum Creek	Enters Passaic River at Newark
32	Ramsey Brook	Enters Ho-Ho-Kus Brook at Allendale
33	Reidway Brook	Enters Sprout Brook at Paramus

SCHEMATIC DIAGRAM OF THE PASSAIC RIVER SHOWING TRIBUTARIES IN THE P.V.S.C. BASIN AREA



PASSAIC RIVER TRIBUTARIES (continued)

NO.	NAME OF TRIBUTARY	
34	Saddle Brook	Enters Saddle River at Ho-Ho-Kus
35	Saddle River	Enters Passaic River at Garfield-Wallington
36	St. Andrews Brook	Enters Sprout Brook at Paramus
37	Schroeders Brook	Enters Dahnerts Pond at Garfield
38	Second River	Enters Passaic River at Newark-Belleville
39	Solomons Brook	Enters Nichols Brook at Clifton
40	Sprout Brook	Enters Saddle River at Rochelle Park
41	Styertowne Creek	Enters into Nichols Brook at Clifton
42	Tony's Brook	Enters into Second River at Bloomfield
43	Third River	Enters Passaic River at Nutley
44	Wabash Brook	Enters Passaic River at Clifton(North)
45	Wagaraw Brook	Enters Passaic River at Hawthorne
46	Waldwick Brook	Enters Ho-Ho-Kus Brook at Waldwick
47	Washington Brook	Enters Goffle Brook at Hawthorne
48	Weasel Brook	Enters Passaic River at Passaic
49	Westerly Brook	Enters Saddle River at Rochelle Park
50	Wigwam Brook	Enters Second River at Bloomfield
51	Zabrieskie Brook	Enters Saddle River at Ho-Ho-Kus

SPECIAL REPORT NO. 9
GENERAL OPERATIONAL REPORT

During the year of 1973 the Passaic Valley Sewerage Commissioners pumped and treated 94,761.24 M.G. for an average daily flow of 259.62 M.G.D. This made the cost $47.17 per M.G. for the Newark South Side sewerage and $62.89 per M.G. for all other sewerage. The $62.89 per M.G. is broken down as follows:

PENSION PLAN		$ 2.790
ADMINISTRATION		
Salaries	$3,646 per M.G.)	
Expenses	4.165 per M.G.)	7.811
LINE MAINTENANCE		
Salaries	$5.018 per M.G.)	
Expenses	0.722 per M.G.)	5.740
RIVER INSPECTION AND SANITATION CONTROL		
Salaries	$2.638 per M.G.)	
Expenses	0.136 per M.G.)	2.774
PUMPING OPER.- MAIN STATION		
Salaries	$3.447 per M.G.)	
Expenses	3.014 per M.G.)	6.461
TREATMENT OPER.- MAIN STATION		
Salaries	$3.934 per M.G.)	
Expenses	5.163 per M.G.)	9.097
MAINTENANCE OPER.- MAIN STATION		
Salaries	$4.573 per M.G.)	
Expenses	0.461 per M.G.)	5.034
YANTACAW PUMPING STATION		
Salaries	$1.261 per M.G.)	
Expenses	0.097 per M.G.)	1.358
WALLINGTON PUMPING STATION		
Salaries	$1.274 per M.G.)	
Expenses	0.199 per M.G.)	1.473
BOND DEBT SERVICE (1954 BONDS)		
BOND DEBT SERVICE (1972 BONDS)		15.326
RESERVE FOR REPAIRS, REPLACEMENTS & IMPROVEMENTS		7.601
	TOTAL	$65.465
CREDITS (Ins. Claims, Tax Refunds, Investments etc.)		2.574
	NET	$62.891

At the Newark Bay Pumping Staion and Treatment Plant, under the direction of Superintendent of Plants, T. Perry, Acting Plant Engineer, P. Walker, and Superintendent of Construction and Maintenance, C. Daly,14,882,400 kw-hrs. of electric power were used at a cost of approximately 1.54¢ per kw-hr. In addition, 419,903 gallons of #2 diesel fuel oil were used at an average cost of 13.51¢ per gallon.

It is estimated that 61,876 million gallons were pumped with electric power, and 32,885 million gallons with diesel power. Flow peaks were as follows:

Peak instantaneous flow rate: 418 M.G.D. at 10:45 A.M. 2/2/73
Peak rate of flow for one hour: 406 M.G.D. from 10 to 11 A.M. 2/2/73
Peak flow for one day: 368.10 M.G.D., 9 A.M. 2/2/73 to 9 A.M. 2/3/73
Peak flow for one week: 312.56 M.G.D., 9 A.M. 1/29/73 to 9 A.M. 2/5/73

The Commissioners barged 562,019.68 wet tons of sludge to sea at an approximate average solids content of 8% to 10% during the year under the direction of Superintendent of Dock and Basins, M. Andolino. 2,276 cubic yards of screening and 9,613 cubic yards of grit were removed at the Newark Bay Plant, and an additional 2,021 cubic yards of screenings and grit were removed from line screens and chambers during the year.

As in the past several years, after each major storm, there was considerable difficulty with the basins. Grit and rags that went through the inadequate screen and grit chambers overloaded the basins to the point of massive breakdowns. PVSC personnel worked hard to return the basins to normal after each storm, but the real key is the need for additional screens and grit chambers that will be supplied with the new head end facilities now under construction.

In addition, at the Main Station, we have been having considerable difficulty with the screens. The new ones were expected to be in operation originally March 1973, but the construction is more than one year late and since the old screens, which would need major expenditures and time (and diversion to the river) to repair, were to be scrapped, no major work was done on them. The Main Station maintenance crews are keeping them going in a race between failure of a screen and getting the new facilities operational.

Work is proceeding with the actual construction of these long awaited facilities. Plans and specifications for them had been completed and submitted to the State Department of Environmental Protection and the Federal Environmental Protection Agency on July 8, 1970. Finally, one year later, on June 14, 1971, approval was re-

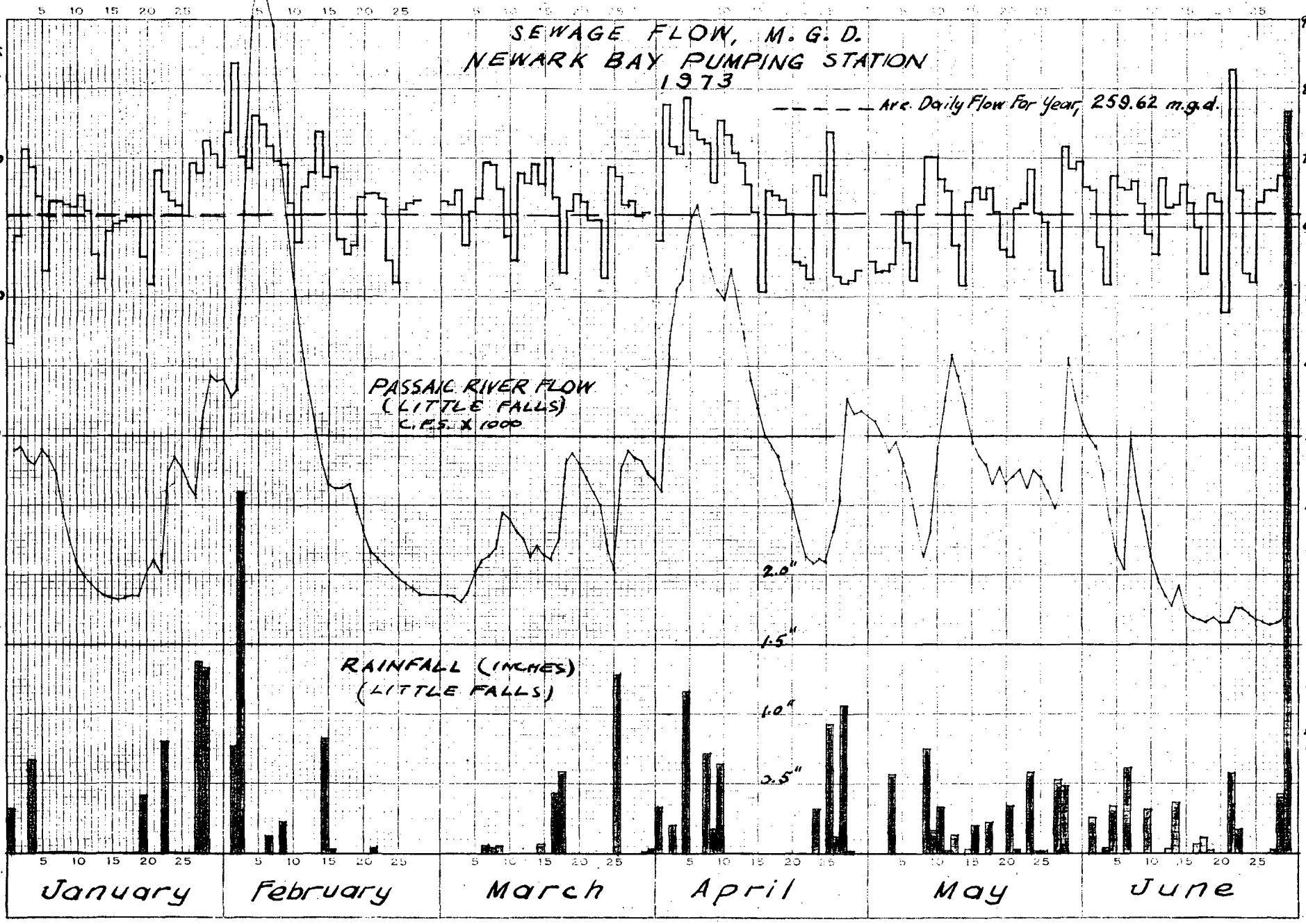
ceived and the work was advertised on June 18, 1971. Bids were received on July 27, 1971, and the major portion of the work was awarded on August 27, 1971. It is expected these facilities will be completed in or about June of 1974.

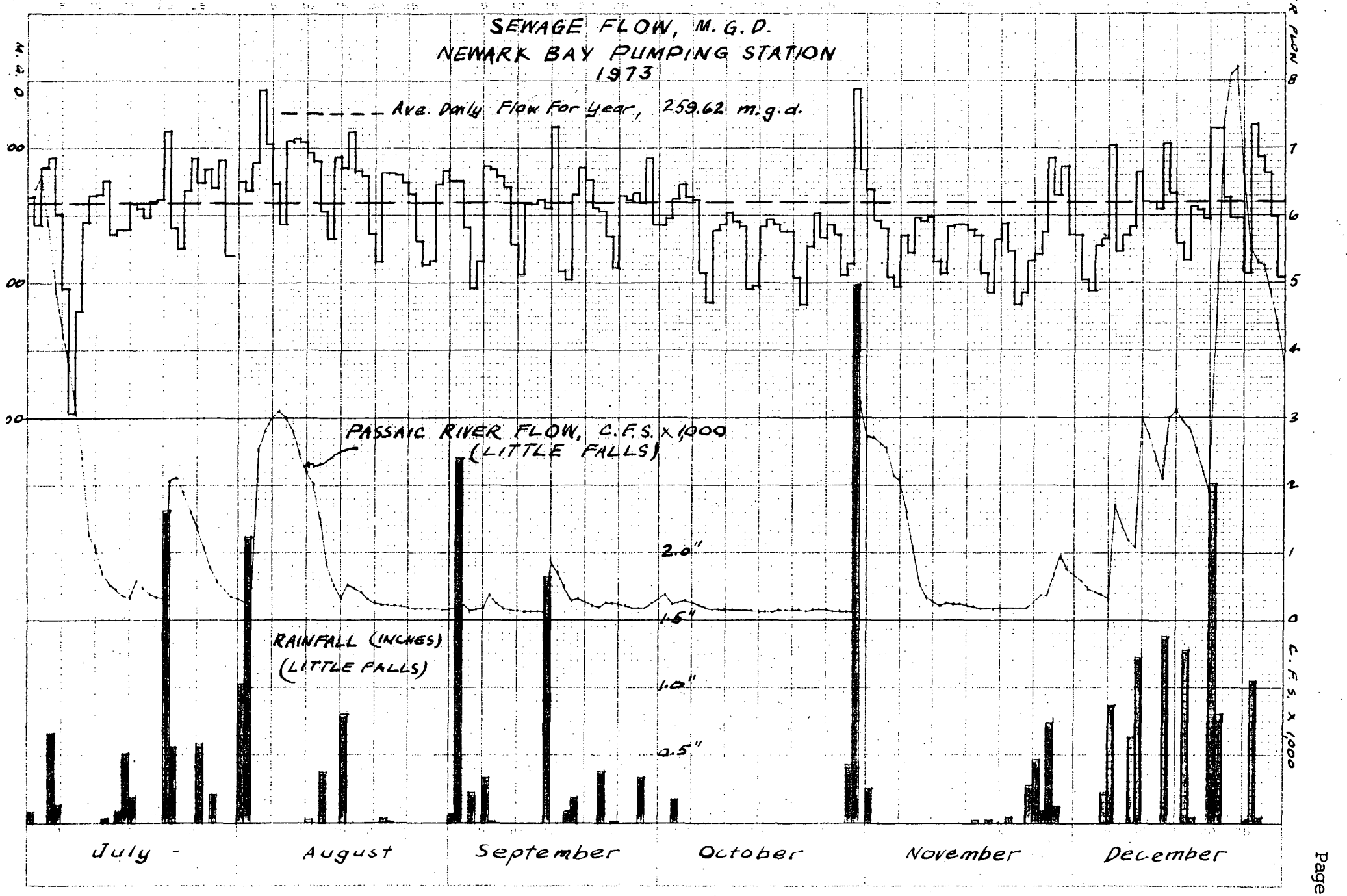
Another problem we are having is with the Nordberg Radial Engines which drive two of the PVSC large pumps (200 M.G.D. each). In 1972 one of the pumps was completely overhauled and the other was expected to be overhauled in 1973. However, after putting the first engine back into operation in early 1973, we had a series of problems with piston rings, whereby they were wearing out at a rapid rate. In addition, some of the pistons started to leak and we had to order new ones. We then found out that Nordberg, now Rexnord, had stopped manufacturing these engines and had made arrangements with Cooper-Bessimer to manufacture spare and replacement parts. The only problem was the very long delivery time on parts. With the difficulties we are now having, and with the anticipated future problems of repairs, I believe these engines should be phased out as rapidly as possible.

A third big problem is fuel allocation. Generally speaking, fuel has been allocated on the basis of the 1972 use, on a half monthly basis. By this I mean that if in February 1972, use was 30,000 gallons, then you are allowed 13,500 gallons for the first half of February 1974, and 13,500 gallons for the second half (based on 90% of 1972 use). This becomes extremely difficult for PVSC since our use varies with weather. We need a large quantity during rainy periods and a lesser amount during dry periods. Thus, if February 1972 was dry while February 1974 is wet, we will be short of fuel. Visa-Versa, if March 1972 was wet and March 1974 was dry, we may have a surplus of fuel; however, surpluses cannot be carried over to a following month, which means we cannot have even the advantage of averaging monthly rainfalls. Thus if fuel allowances are not changed, PVSC will run into difficulty in 1974.

Additional fuel will be needed for our new incinerator (to go on the lines May or June) and for our chlorination facilities (to start again May 15). A further problem for the latter is the chlorine supply. We need an estimated 45 tons per day and so far we have only been able to get a committment of 90 tons per week for the May 15 to September 15, 1974 season.

On the next pages are graphs showing the pumping of sewage at the Newark Bay Pumping Station on a daily basis for the year 1973.


SEWAGE FLOW, M. G. D.
NEWARK BAY PUMPING STATION
1973
Arc. Daily Flow For Year, 259.62 m.g.d.
M. G. D.
RIVER FLOW
300
200
100
0
PASSAIC RIVER FLOW
(LITTLE FALLS)
C.F.S. X 1000
2.0"
1.5"
1.0"
.5"
RAINFALL (INCHES)
(LITTLE FALLS)
C.F.S. X 1000
January
February
March
April
May
June


SEWAGE FLOW, M.G.D.
NEWARK BAY PUMPING STATION
1973
Ave. Daily Flow For year, 259.62 m.g.d.
PASSAIC RIVER FLOW, C.F.S. x 1,000
(LITTLE FALLS)
2.0"
1.5"
1.0"
0.5"
RAINFALL (INCHES)
(LITTLE FALLS)
C.F.S. x 1000
July
August
September
October
November
December

At the Commissioners' Wallington Station, under the direction of J. Manney, 3,471.30 million gallons were pumped, or an average of 9.51 M.G.D. with a consumption of 584,000 kw-hrs. of electricity at a cost of 2.42¢ per kw-hr. This station pumps sewage from Wallington, East Rutherford and parts of Garfield, Saddle Brook, Passaic and Rutherford.

The Yantacaw Station, under the direction of P. Melillo, pumped 1377.44 M.G. or an average flow of 3.77 M.G.D., with a consumption of 248,300 kw-hr. of electricity at a cost of 2.79¢ per hour. The Yantacaw Pumping Station pumps sewage from Lyndhurst and part of Rutherford.

The Commissioners' Department of Sanitation Control, under the direction of Director of Sanitation Control, A. Goldberg, Superintendent of River Inspection, L. Cuccinello, and Chemist E. Rys, took and analyzed approximately 4,200 samples from the Passaic River and its tributaries and from various discharges into the Passaic River and its tributaries within the Commissioners' district. Approximately 34,550 separate tests were made on these various samples during the year. Also approximately 650 other samples, with 4,300 tests were run on PVSC operations and other items, for a total of 4,850 samples and 38,850 tests - a considerable amount of work. In addition to standard tests, such as C.O.D., B.O.D., pH, total solids (mineral and volatile), suspended solids (mineral and volatile), B. Coliform, chlorine residual, dissolved oxygen, odor, other tests such as chlorine demand, chromate chromium, soluble ether extracts, (oil), fecal coliform, total bacteria count, iron, acidity or alkalinity, cyanide, volativity and flammability, distillation fragments, nickel, zinc, manganese, copper, identification of fats and oils, and microscopic, physical examinations were made where special situations called for them.

The Commissioners new laboratory went into operation in June 1973 with many new facilities and capabilities. Generally speaking, things are going well, however we have been having trouble with our new Atomic Absorption Spectrophotometer used for heavy metal analysis, and therefore, some of our industrial surveying has been delayed. As soon as this problem is straightened out we intend to police heavy metal dischargers and require them to pretreat to standards to be set, based on Federal and State guidelines (when they are issued).

Violations from 57 separate violators were eliminated during 1973, due to the work of this department (see Index list, pages ii & iii). In addition, the members of the Sanitation Control Department are constantly surveying industries in the area and keeping track of outlets into the Passaic River and its tributaries,

in order to keep its records up to date.

The Meter Department, takes readings from approximately 70 different flow and water level meters, some daily, most weekly. The old meters are constantly maintained, and slowly are being modernized with a view of computerizing the flow meters, correlating them to water level meters with an alarm system when the two types do not check, showing a malfunction or a problem in the trunk line.

The Line Maintenance Crew, under the direction of General Superintendent T. Lazzio, Superintendent of Line, J. Ferrara, and Assistant Superintendent of Line, J. Kearney, keeps constant check of the line, cleaning screens, grit chambers, weir chambers, repairing manholes, and cleaning sewers.

I am ably aided in the thousand and one engineering details in the plant, on the line, and in the office by Deputy Engineer E. Moller, and Assistant Engineer, J. Lawrence.

At this point I would like to commend several Passaic Valley supervisory personnel for the long extra hours they put in during the year attending to their duties. I cannot say for work beyond the call of duty, because being a Passaic Valley supervisor requires many times extra hours of work. Yet, remembering that these men do not get paid additional or for overtime, it does take some dedication to do what they did.

Ed Moller, Deputy Engineer, accompanied many times by John Lawrence, Assistant Engineer, worked many weekends and nights when the flow was low, on sewer connections, internal sewer inspections, and in particular, work on the sewer cleaning in Harrison and Paterson. They also worked many holiday weekends, (unless rain interfered), so as to use the long periods of low flow. Connie Daly, Superintendent of Construction and Maintenance, for his weekend and early morning work on tide gate repairs and weekend work on the basins. Alex Goldberg and Ed Rys for coming in many weekends to finish work which our overloaded laboratory was not able to complete in the five day week. Tom Perry, Pete Walker for the number of weekends and nights they worked on a breakdown of a screen or basin. It was rare that a week went by that one of them did not receive a call at home, (usually at 2 A.M.), from the operating engineer on problems that they usually solved with a word of advice. Bud James, for the times he came in when an electrical failure occurred. Joe Walton, Lou Gorga and Anthony Malba for the weekend and night work on repairs to basins, screens and pumps. Lou Cuccinello, Supervisor of River Inspection, who spent many weekends tracing sources of pollutions and answering calls at night. Lou is another man who does not have many weeks pass without getting

calls at his home at all hours concerning pollution problems.

There are others, but these men, not just once or twice, but constantly, put in long extra hours, not for extra money, because this was not given, but just to see that their job was properly done.

At this time, I wish to express my appreciation to Chairman Louis Bay, 2nd, Vice-Chairman Walter Davis, Commissioners Robert Davenport and Charles Lagos, and former Commissioners Ben Gordon and Carmine Perrapato, for their understanding of the tremendous operating problems and their wise guidance, and particularly for the progressive policies they have established, which will enable Passaic Valley to soon lead the field again in Pollution Control. I also wish to greet our new Commissioner, Michael Giuliano, to a job that will require a great many hours of his time.

PART II

VIOLATIONS AND ELIMINATIONS

The following are reports on pollutional discharges into the Passaic River within the Commissioners' jurisdiction (the watershed from the Great Falls in Paterson to the mouth of the river at Newark Bay) during 1973, together with reports on how they were eliminated during 1973, and the names of the River Inspectors assigned to investigate the pollution:

Violations & Eliminations- Advance Piece Dye Works, Inc., 112 River Road, Clifton, N. J. 07014

April 9 to May 5, 1973 (D. Miele, Jr.)

Samples from the outlet of the boiler room taken on April 9 and 17 were analyzed and found polluting, having a high turbidity and pH. Mr. Rogers, Plant Manager, was notified by the Inspector on April 9, 1973. The Inspector was informed that the pollution would be eliminated. On April 19, the Inspector reported that Mr. Roger had told him that they had ordered the necessary pump etc. to neutralize the boiler blow-off. Since, as of April 30, no work had been done on this violation, and since the company had not written to the PVSC with a program of elimination, Mr. Lubetkin wrote to it on April 30, confirming the pollution, directing them to halt it, and requesting a reply as to what was being done, together with a time schedule on abatement. Mr. Urdang, Vice President, replied on May 3, that the necessary supplies had been ordered and delivery was expected during the week of May 7, 1973.

On May 15, 1973, Mr. Urdang wrote to Mr. Lubetkin that the violation was now eliminated. Inspector Miele confirmed this in a report wherein he reported that on May 5, 1973 the violation was eliminated by the company repiping this discharge to the sanitary sewer system.

* * *

July 11, 1973-September 23, 1973 (A. Dondero)

On July 11, 1973, Inspector Dondero detected a polluting material coming from the above plant and entering into Third River. Upon checking he discovered personnel cleaning the boilers allowing the residue material to enter into Third River. Mr. Dondero directed Mr. Epstein, President, and Mr. Rogers, Engineer, to cease this pollution at once. They immediately halted the work, but when Mr. Dondero visited the plant the next day he found the boiler cleaning and pollution again evident. Inspector Dondero again directed personnel of Advance Piece Dye Works, Inc.

Violations and Eliminations-Advance Piece Dye Works (con't.)

to halt the pollution and notified the PVSC's officers of the facts. Deputy Engineer Moller, acting on information from Inspector Dondero, sent a telegram to the company, attention Mr. Epstein, directing them to cease the discharge or legal action would be taken.

The Advance Piece Dye Works did halt the cleaning until they plugged the drains from the boiler which then halted the direct discharge to Third River, however the material accumulated on the boiler room floor and was subsequestly swept into the yard where it could eventually reach the river by either ground leaching or surface runoff during a heavy rain.

Furthermore, a sample taken on July 19, 1973, from a discharge pipe leading to Third River was found to have a pH of 10.0 which is classified as polluting. Inspector Dondero notified Mr. Epstein and was informed by Mr. Rogers that the only flow going back to Third River was air compressed cooling water that had come from Third River. A check revealed that the inlet water and discharge water did not have the same pH which indicated an addition or leakage of caustic material to the discharge water.

On July 26, 1973, Mr. Lubetkin summarized what had happened to date in a letter to Mr. Epstein and asked for a complete explanation as to what was done; why the pollution continued after they were directed to cease; and what was the cause of the latest pollution. On July 27, Mr. Epstein replied that he was unaware that the pollution had continued after the inspector's instruction to cease. He also advised PVSC that the pollution had been halted and thanked PVSC for their cooperation.

Mr. Lubetkin then wrote to Advance that the pH was still too high in their discharge and in addition they had failed to report this discharge in the Effluent Waste Survey of May, 1972, submitted to PVSC. In fact they had misinformed the PVSC by indicating that they had no discharge to either the storm sewer, river or ditch and this was contradicted by the facts. Since The PVSC also could find no application from Advance Piece Dye Works, Inc. to the USEPA for a discharge permit, Advance Piece was so notified. Mr. Lubetkin sent them a new Waste Effluent Survey form and requested that this be filled out correctly to indicate what, if any, water goes to Third River together with a sketch showing outlets, etc.

On August 10, 1973, Mr. Epstein wrote to PVSC that they had engaged Woodward-Envicon, Inc., Clifton, N.J. to help remedy the situation. On August 22, Mr. Urdang (Vice President of Advance) wrote that Woodward-Envicon was no longer engaged by them and that they would endeavor to solve the problem by themselves.

Mr. Lubetkin replied on August 27, that the letter of August was too nebulous since there were no dates, and therefore, in view of what had happened to date, unless the problem was solved by the PVSC's next board meeting (September 18,1973), Mr. Lubetkin would have no recourse but to recommend to the Commissioners that legal action be taken to halt the pollution.

On August 31, Mr. Urdang replied that they have contacted the Betz Laboratories to assist them in solving their problem.

On September 7, Inspector Dondero was told that the company intended to install a 650 gallon "blow down" tank to intercept the boiler blow down and this would then be put into the sanitary sewer.

On September 17, Mr. Urdang wrote to the PVSC, explaining that the 650 gallon tank was installed and they had run 300 feet of 3" pipe to tie into the sanitary sewer system. He said the tie-in would be done Saturday, September 22, when the boiler was down. A letter dated September 25, 1973 stated that the work was completed on September 22, 1973. This was confirmed by Inspector Dondero.

Violation and Elimination-A.T.&T. Building Site
Passaic Avenue, Rochelle Park, N.J.
Construction by John Ryan Contractors, N.Y.C.
October 31, 1973 (J. Perrapato)

Oil in Sprout Brook was traced back to the construction site where the John Ryan Contractors, of N.Y.C. was constructing a building for A.T.&T.

Investigation revealed that uncovered fuel oil tanks overflowed during a rain and entered Sprout Brook via a storm ditch. The Superintendent, J. Sulzinsky, claimed A.T.&T. had the tanks filled, but that steps were being taken to prevent recurrence of this pollution.

Violation and Elimination-Armour-Dial, Inc., 179 Entin Road, Clifton, N.J. 07014
July 31, 1973 (F. Wendt)

Mrs. Molner of Rutherford, N.J. called the PVSC office at 1:45 P.M. on July 31, 1973, that a white discharge was coming from the Entin Storm Sewer into the Passaic River. Inspector Wendt traced this back to the Armour-Dial Company where he was informed that there was a spill of an estimated 50 to 60 gallons of a biodegradable detergent during a delivery, Company personnel picked up an estimated 75% of this material with squeegee and shovels and hosed the area, washing the remaining material into a storm drain which went to the Passaic River via the Entin Storm Sewer.

Violation and Elimination-Armour-Dial (continued)

Mr. Lubetkin wrote to the company on August 6, 1973, requesting information as to what would be done to prevent a recurrence of this type of accident. Mr. Dandurand , Plant Manager replied August 10, 1973, explaining what had happened and that an "oil dry" would be kept on hand to prevent the results of an accident of this type from reaching the River in the future.

Violation and Elimination-Atlantic Chemical Co., 10 Kingsland Road, Nutley, N. J.

April 28-May 29, 1973 (D. Miele,Jr.)

On April 28, a red color in Third River was traced to this company. Investigation revealed that the dye was seeping from building #13. Mr. Danziger, Vice President, explained that when they had repaired the floor and drainage system last year, they did not realize that there were holes in the concrete floor of the upper section which were covered by steel plates. Apparently, spills and wash-downs drained to an unused basement area. He then assumed that the water table had risen high enough to wash some of the accumulation from this area.

The inspector reported that they have sealed the concrete floors, and in a letter dated May 29, 1973, Mr. Danziger reported that their plumbing contractor, James Pecora, installed cast iron drains and piping, and with the floors patched, all process water wasbeing directed to their settling basin.

Violation and Elimination-BASF Wyandotte Corp., 550 Central Ave., Kearny, N.J. 07032

February 10, 1973 (J. Colello)

On Friday, February 9, an order was placed with Eldorado Terminal Corp., Bayonne, N.J.,by BASF for five truckloads of 2-ethyl-hexanol, an alcohol, specifying delivery on Saturday, February 10. The capacity of the alcohol storage tank was evidently reached during the deliveries and the capacity of the liquid venting equipment was not sufficient to handle the capacity of the unloading pumps on the truck. The internal pressure increased in the tank and ruptured a welded seam (approx. 2 P.M., Saturday, February 10, 1973) and 2,500 barrels of the alcohol drained into the Passaic River.

The loss was not detected by the company until Sunday, February 11. Observation by BASF personnel failed to detect any surface film or any dead aquatic life in the Passaic River. Apparently, the rate of dissipation by tidal action and wind was of sufficient magnitude so that no detrimental effects were discovered.

Violation and Elimination-BASF Wyandotte Corp.(Continued)

The following program was instituted by BASF to prevent a repetition of this type of accident.

1. Prior written approval required for bulk deliveries.
2. Bulk deliveries tobe unloaded under supervision of a production employee.
3. High-level alarm system to be installed on raw material tanks.
4. An adequately sized positive pressure relief device shall be installed.
5. An inventory of contents of raw material tanks shall be taken on each shift.

Violation and Elimination-Towns of Belleville and Nutley-Washington Avenue Sewer Break

January 30-February 9, 1973 (D. Miele,Jr.)

When on January 30, 1973, the Nutley sewer department attempted to clear a sewer blockage on Washington Avenue, they discovered a break in the 12 inch sanitary line. They started excavating, meanwhile pumping sewage into a storm catch basin which thence reached the Passaic River via the Nutley-Belleville Storm Sewer. Since there was a 24 inch gas line near the broken sewer and since the sewer required an excavation of approximately 14 feet, it was necessary to get an outside contractor on an emergency basis.

The contractor started to work on January 31, 1973 and had to shore up the side where the gas line was located.

Work was completed by Salerno Contractors of Newark, N.J. on February 9, 1973 at 8:15 P. M. at which time pollution was eliminated.

* * *

February 20 -March 7, 1973 (D. Miele,Jr.)

Soon after the repair of the Washington Avenue Sewer, another section of this sewer on Hancox Avenue collapsed. The sewer is jointly owned by the Towns of Belleville and Nutley.

The towns hired Salerno Contractors of Newark to repair the sewer.

The contractor started work and was pumping the raw sewage into the Bellville-Nutley storm ditch which ran into the Passaic River.

On February 26, Mr. Lubetkin wrote to both Nutley and Belleville, asking them to direct the contractor to pump around the break area into the sanitary sewer in order to prevent pollution of the Passaic River. Inspector Miele reported that subsequent to the letter, raw sewage was being pumped around the break into the next sanitary manhole, thus eliminating the pollution. Work on the repair was completed March 7, 1973.

Violation and Elimination - Town of Belleville, Washington Avenue Storm Sewer
April 27 - June 8, 1973 (J. Dondero)

At 9:00 A.M. on April 27, a call was received by the PVSC from Mr. E. Post of the New Jersey Department of Environmental Protection, reporting red color in the Passaic River at Belleville. Supervisor Cuccinello checked and found that a break in the sanitary sewer in Main Street across from 374 Main Street (between Joralemon and Terry Streets) caused a back up of sewage (including dye from the former grounds of the Tenneco Corp.) which then ran to the Passaic River via the Washington Avenue Storm Sewer.

Mr. James Soldo of Belleville brought in three pumps and pumped from the Belleville manhole to a PVSC manhole (about 30 yards) around the break to control the pollution. The pumps were operated over the week-end while a contractor was sought to repair the sewer.

Pumping started at 2:30 P.M. on April 27, with two four inch and two three inch pumps, and thus they controlled the pollution. On May 29, the Cifelli Construction Company was engaged to repair the sewer. An excavation of 260 ft. length, 10 ft. deep, and 6 ft. wide was started to replace the broken 15" sanitary sewer on May 31, 1973. They completed the sewer work during the first week of June 1973.

Violation and Elimination - Bondatex Mills, Inc., 93 Entin Road, Clifton, N.J.
April 23, 1973 (F. Wendt)

On April 23, 1973, Mrs. Molner of Rutherford reported to the PVSC that a grey material was coming from the Entin Storm Sewer in Clifton. Inspector F. Wendt traced this to the Bondatex Mills, Inc.

After contacting Mr. P. Wiseberg, President, and pointing out the pollution, they both went through the plant and found a Vibro washing machine overflowing to a drain beneath the machine. The drain had a tee going to both the sanitary sewer and the storm sewer, thus when the sanitary sewer worked properly, there was no pollution, but, as was then the case, if there was a blockage in the sanitary sewer, the waste overflowed to the storm sewer. Mr. Wiseberg was directed to correct the source of pollution.

On April 24, the plant crew, together with a plumber, cleared the sanitary sewer blockage and plugged the pipe going to the storm sewer, eliminating the pollution at 3:00 P.M. of that date.

Violation and Elimination - Brookdale Garden Apartment, 935 Broad Street, Bloomfield, N.J. and Eastern Oil Company, 1510 Boulevard Jersey City, N.J.
January 18-25, 1973 (D. Miele,Jr.)

Inspector D. Miele, while making a routine check of the area, noticed a streak of oil at 9:30 A.M. on January 18, 1973, in the Third River coming over the falls in Nutley. He called Mr. Cuccinello and Mr. Fleming to aid him in tracing the oil to its source. Together they traced the oil through Yantacaw Pond, Nichols' Pond and Memorial Park in Nutley, up to Harrison Avenue and Franklin Avenue in Nutley, where the oil seemed to disappear. They backtracked checking outlets and apartment buildings in the area but could not locate the source.

On the morning of Friday, January 19, they checked further upstream into Bloomfield. They finally found a 36" storm line that runs from the Brookdale Garden Apartments at 935 Broad Street, Bloomfield, which contained oil. They checked further and noted oil along the ground near a loading pipe by the boiler room.

They spoke to Mr. F. Palmer, manager of the apartment and were told by him that the Eastern Oil of New Jersey supplied them with oil and that at about 7:00 A.M. on Thursday, January 18, while they were loading the underground tank, the hose slipped and a large quantity of oil escaped along the ground and into the storm sewer (thence to Third River). He estimated the amount of oil lost was one hundred gallons.

Eastern Oil personnel cleaned the property with an absorbent material.

Further inspection revealed poor housekeeping in the boiler room with oil on the ground and in the sump (which was thence pumped to the storm drain). Mr Palmer was informed that this was also a pollution violation, Mr. Palmer said he would take corrective measures.

He called back Eastern Oil and had their men clean up all residual on Saturday, January 20, 1973. Mr. Palmer then had his men clean all their boiler rooms and he replaced a leaky oil intake pipe. He also informed the inspector that he was setting up routine inspections of boiler rooms to maintain cleanliness.

Inspector Miele reinspected the area January 25, 1973 and found it satisfactory.

Violation and Elimination - Cellomer Corp., 46 Albert Avenue, Newark, N.J. 07105
April 26 - 27, 1973 (J. McLaughlin)

At 1:05 P.M., the PVSC received a call from a Mr. Wright (address not given) that there was a resin spill at the above company.

Inspector McLaughlin's investigation revealed that a tank trailer, owned by Matlock Tank Lines of Woodbridge, N.J. had overturned while in the process of loading liquid resin. The resin flowed to the Albert Avenue storm sewer, thence through the Lockwood Street storm sewer to the Passaic River.

Coastal Services Company was called and they cleaned up the resin via a vacuum tank truck. They also set booms at the Lockwood Street storm sewer outlet and placed sand bags in the manholes at Albert Street and Lockwood Street to prevent resin from reaching the river.

Mr. James Hamilton from the NJDEP was also at the site and both he and Inspector McLaughlin inspected the clean-up operations.

By 8:00 P.M. their tank trailer loads of resin were removed from the area. A cleaner was applied to the street residue and the emulsion was cleaned up with the vacuum trucks.

On Friday, April 27, six additional tank trucks of material were removed from the sewer.

On Saturday, April 28, the area was again inspected and the clean-up was complete.

Violation and Elimination - Clifton Clothing Co., 80 Van Winkle Avenue, Wallington.
November 2, 1972 to April 27, 1973 (F. Cupo)

While checking in the area of Wallington Pumping Station, Mr. Lubetkin noticed a stream of hot material shooting into the river from the back of this company. The discharge only lasted a short time, but Mr. Lubetkin requested an inspector to investigate.

Inspector F. Cupo visited the Clifton Clothing Co., on November 2, 1972, meeting with Mr. Alex Buday. The discharge was a boiler blow down which occurred usually at 12 Noon and 4 P.M. On November 10, Inspector Cupo again visited the plant at 11:50 A.M., and observed the blowdown which consisted of three blow offs, each approximately two seconds

Violation & Elimination - Clifton Clothing (continued)

long which sent a stream of steaming water part way across the Passaic River. Mr. Vallorano (the owner) was contacted and a sample of the boiler water was obtained (analysis indicated a pH of 9.3, high solids and turbidity, but acceptable C.O.D.)

Mr. Vallorano was told to correct the situation at once as it was dangerous to anyone on the river to be exposed to this steaming jet. In addition (although the volume was low) it was technically polluting.

On November 17, Mr. Vallorano wrote to Mr. Lubetkin in which he requested a copy of the PVSC's analysis. In addition, he stated that they were in the process of installing a blow-off baffle, but they required clearance from the State on such an installation on the State owned property. Mr. Vallorano requested an appointment to help solve the problem.

On December 6, 1972, Mr. Lubetkin wrote to Mr. Vallorano giving him the pollution analysis of his boiler water. In addition, Mr. Lubetkin explained that the practice of jetting a steam discharge part way across the Passaic River was dangerous and could harm a person in the vicinity. Clifton Clothing Company was directed to cease this procedure at once.

Since no reply was received, Mr. Lubetkin again wrote on December 26, 1972. On December 28, Mr. Vallorano replied to the letter of December 6, 1972, saying that a conference was had with the State on December 27 and that the State would look into the matter and would be in contact with PVSC as soon as possible.

On January 5, 1973, Mr. Lubetkin wrote to Mr. R. Bellis, Ass't, Bureau Chief, Water Pollutions Control Operations of the N.J.D.E.P. enclosing a summary of the situation and stating that since the State of N.J. was involved, that it was the PVSC policy not to take action until the State had completed its investigation unless so requested by the State. Mr. Bellis replied on January 10 that he was assigning Mr. T. Harding, Supervisor of Industrial Control, to this matter. On January 22 Mr. Lubetkin wrote to Mr. Harding requesting a report on progress (or lack of it).

Since PVSC received no reply, Mr. Lubetkin wrote again on March 1, and after hearing nothing, wrote again on March 27, 1973 to Mr. T. Harding.

Violation and Elimination - Clifton Clothing (continued)

On April 26, 1973, the PVSC received a copy of an order from the NJDEP to Clifton Clothing, directing them to cease their discharge by May 11, 1973.

On April 27, 1973, the blow-off was diverted through a 4 inch pipe into a 10 ft. reinforced concrete tank, and thence through 280 ft. of 4 inch pipe into the Mercer Street sanitary line, thus eliminating this pollution.

Violations and Eliminations - City of Clifton

Industrial East Sewer
May 2 - May 4, 1973 (F. Wendt)

On Wednesday, May 2, at 9:45 P.M., an explosion occurred at the Industrial East pumping station near the intersection of Industrial South. The manhole was blown from the underground station and the pump was made inoperative, thus sewage backed up and overflowed into a storm sewer into McDonald's Brook.

The pump was repaired and reinstalled by Friday, May 4, 1973 at 3:50 P.M., thus eliminating the pollution.

* * *

Kingsland Road Sewer
August 21 - 31, 1973 (A. Dondero)

On August 21, 1973, at approximately 2 P.M. a blockage in the City of Clifton's Kingsland Road sewer caused an overflow of waste at the rear of the Bradlee Shopping Center parking lot. Investigation revealed a section of the 16" asbestos cement sanitary sewer eaten away, causing a collapse and the blockage.

The pollution was halted on August 22 by cutting through the blockage and channelling through until pumps could be brought in. The sewer was finally repaired on August 31, 1973.

* * *

November 7, 1973 (F. Wendt)

On Wednesday November 7, 1973, approximately a dozen 50 pound bags of Phthalic Anhydride had apparently fallen from the back of an unknown truck at Van Houten Avenue near Grove St. and at Valley Road near Nelson St. Phthalic anhydride is a mildly toxic white chrystalline material which would sublimate (turn to gas) into a toxic and skin irritant gas

Violations & Eliminations- City of Clifton -(continued)

under the heat and compression of automobile tires.

The contents of the bags were spread over the streets, and vehicular traffic spread the material further causing fumes to be emanated as the chemical sublimated.

The Clifton Fire Department opened five hydrants and washed the material with hoses into catch basins where it went to Plog's Brook and thence to the Passaic River.

Violation and Elimination - Como Textile Printers, Inc. 193 East Railway Ave., Paterson
March 27, 1973 (L. Tateo)

On March 27, 1973 at 1:10 P.M. Mr. E. Bush, Clifton Sewer Foreman,reported a red dye going into Wabash Brook from the Merselis Ave. Storm Sewer near Nash Park.

Supervisor L. Cuccinello, remembered a similar incident which occirred in 1971 at that location and went right to Como Textile Printers in Paterson.

He discovered that industrial waste from this company was overflowing its sump and reaching the storm sewer via an underground connection. The overflow was due to a malfunctioning of the sump pump which pumps the material, normally to the sanitary sewer.

The pump was put back in operation, thus eliminating the pollution and on the following day, Inspector Tateo reports that they had installed an auxilary sump pump to guard against future pollutions.

Mr. Lubetkin wrote this company a letter, pointing out that in 1971 when this had first happened they were going to reconnect the illegal connection from the storm sewer to the sanitary sewer and had only installed the sump and pump as a "temporary" measure. Mr. Lubetkin directed that they seal the overflow connection to the storm sewer as soon as possible.

The Como Textile Printers installed a new cast iron line to the sanitary sewer and sealed the lines leading to the storm sewer. The work was reported completed on April 5, 1973 by Inspector Tateo.

Violation and Elimination - Dart Industries, Inc.
W.115 Century Road, Paramus, N.J.
October 10-11, 1973 (M. Tomaro)

Mr. H. Saenger, Maintenance Manager of Dart Industries, called the PVSC Inspector M. Tomaro at approximately 10:15 P.M. on Wednesday, October 10, and informed him that earlier that evening (approx. 7:30 P.M.) an oil line on a pilot plant set-up had ruptured. It was estimated that approximately 150 gallons of oil spilled over their concrete pad and flowed into a catch basin in their yard that connected into Sprout Brook, a tributary of Saddle River, thence the Passaic River.

Company personnel spread sand and an oil absorbent on the concrete pad with the residual material shoveled up and disposed of by the Franco Sanitation Company as it became oil soaked. Bales of straw were placed at the outlet to Sprout Brook and oil was skimmed off as it accumulated. The broken pipe was repaired and company officials appeared to have taken all reasonable precautions to contain the accident.

The rainbow effect of the oil break could be seen in Sprout Brook for about a mile downstream on October 11.

Immediately following the incident, Dart sealed the catch basin in the Pilot Plant area so that any future spillages in this area would be contained.

Violation and Elimination - Eastwood Nealley Co.
Town of Belleville, 28 Joralemon Street, Belleville, N.J. 07109
Sept. 25 - Oct. 26, 1973 (A. Dondero)

While checking the Passaic River in the Commissioners' patrol boat, "PVSC Pollution Control", Superintendent Lazzio and Supervisor Cuccinello saw a green discharge coming from a sewer from the former Tenneco property in Belleville.

Checking the source revealed that the sewer was one that had been previously sealed, but upon the moving of Tenneco (about two months ago) and the removing of a pumping station which they had installed to prevent pollution, a back-up and flooding condition manifested itself at the Eastwood Nealley Co. Therefore, without notifying PVSC, the sealed sewer was broken and the green waste was allowed to enter the river, relieving the flooding at the Eastwood Nealley Co.

Further investigation revealed that the source of the green color was fluorescein dye which had contaminated the well water used by Eastwood Nealley for cooling purposes. The

Violation and Elimination - Eastwood - Nealley Co. (con't.)

cooling water was allowed to go into the Belleville storm sewer and thus pollute the Passaic River.

Both Eastwood-Nealley and the Town of Belleville were notified of the pollution and directed to have it halted at once.

On October 9, 1973, Mr. T. Sikorski, Plant Manager, wrote to PVSC thanking them for advising Eastwood - Nealley of the pollution, and informing the PVSC that they were discontinuing the use of the well water and will use city water until they find a way to decontaminate the well water. Inspector Dondero visited the plant on October 10 and confirmed the switch to city water, but during the early part of the day found the discharge still contaminated due to the residual well water in the system. A visit in the later afternoon found the discharge non-polluting.

Violation and Elimination - Fabricolor Corp.
24½ Van Houten St. Paterson, N.J.
February 16-17, 1973 (L. Tateo)

A discoloration in the river on February 16, 1973, was traced back to this company by Inspector L. Tateo.

The plant foreman, Mr. Arthur Mason, was shown the problem. He shut down production of the plant Friday, February 16, 4 P.M. - 12 Midnight shift, and Saturday, February 17, in order to find and repair the trouble.

On Saturday, a hole in the concrete sewer was found which had allowed the industrial waste to flow to the river. The hole was sealed, thus eliminating the pollution. The plant was checked the following week and no pollution was detected.

Violation and Elimination - Fair Lawn Industries, Inc.
20-21 Wagaraw Road, Fair Lawn
December 14, 1973 (T. Colello)

The Fair Lawn Industries, Inc., is an industrial complex with a 4' x 4' concrete storm drain discharging into the Passaic River.

At 1:20 P.M. on December 14, Mr. R. Fry of Glen Rock, called the PVSC office and reported a red discharge from the

Violation and Elimination - Fair Lawn Industries, Inc. (con't.)

State Side Footwear Corp. (a tenant in this industrial complex) going into the Passaic River.

Mr. W. Fleming and Mr. T. Costello were directed to check this item.

At approximately 3 P.M. they observed this discharge and upon investigation found out that at approximately 1:15 P.M. maintenence men replaced a nipple on a boiler blow down line and the boiler water (rusty) flowed down a drain into the river. The nipple replacement was completed at approximately 3:00 P.M. stopping the pollution.

Violations and Eliminations - Borough of Fair Lawn
Cangor Place Crossing
February 5-6, 1973 (M. Tomaro)

The very heavy rains of February 1-3 caused river flooding (reaching a crest on February 5, 1973) and backing up of sewage due to the flooding of some local sewers. The Borough of Fair Lawn had to pump from the Cangor Place manhole into the Passaic River in order to prevent flooding of local cellars. They pumped from 10:30 A.M. to 1 P.M. on February 5 and from 11:30 A.M. to 9 P.M. on February 6, 1973.

* * *

Heights Avenue Storm Sewer
September 11, 1973 (T. Costello)

At 1:00 P.M. on September 11, 1973, Inspector T. Costello noticed a discharge of sanitary sewerage going into the Passaic River from the 14" Heights Avenue Storm Sewer. Mr. Costello contacted Mr. L. Knapp, Superintendent of Public Works of Fair Lawn, and told him of the pollution.

Mr. Knapp sent the maintenence crew to check and they found that a blockage in the Fair Lawn sanitary sewer caused an overflow from the manhole at Heights Avenue and Wagaraw Road into the storm sewer.

The blockage was removed at approximately 3:00 P.M. thus eliminating pollution.

Violation and Elimination - Fair Lawn Water Pollution Control Facilities, 2-01 Saddle River Road, Fair Lawn,N.J.
Intermittent (M. Tomaro)

This activated sludge plant treats an average daily flow of 2.7 million gallons per day and discharges its chlorinated effluent to Saddle River, a tributary of the Passaic River. The sludge is digested and dried in lagoons. The licensed operator is Donald Eelman. The Commissioners monitor the discharge from this plant routinely.

In 1973 of 47 samples taken 6 were unsatisfactory as follows:

May 17, 1973: Sample had a slightly high C.O.D., turbidity and suspended solids. Upon reporting this to the Chief Operator, the inspector was informed that on the morning of May 17, two aeration tanks were being cleaned, and therefore some activated sludge was carried over to the effluent from the temporarily overloaded remaining units. Things were back to normal the following day.

September 12, 26, October 24, 31 and November 8, 1973: These samples, generally speaking had a slightly high turbidity, suspended solids & B.O.D. and was explained by a plant "upset". It is to be noted that the samples for the remainder of the year were satisfactory.

Violation and Elimination - Fiske Bros. Refining Co. 129 Lockwood Street, Newark, N.J.
February 7, 1973 (J.McLaughlin)

While making routine inspections of his district , Inspector J. McLaughlin saw the hose coupling strap from a Tank Truck break, releasing approximately 60-75 gallons of bright stock oil into Esther St. The tank truck was owned by Tank Truck Rentals of Croydon, Pa. and was on lease to Chemical Leaman Tank Lines, Inc. of Downingtown, Pa. making a delivery to Fiske Bros.

The driver notified his terminal manager in Pennsylvania while Inspector Mc Laughlin contacted Mr. Louis De Nicola the terminal manager for Chemical Leaman in Newark. Mr. Di Nicola contacted Sampson Tank Cleaning Co., Bayonne,to clean up the oil.

Meanwhile Mr. Clifford Wolf, Supt. of Fiske Bros., directed two Fiske employees and the driver in preventing the oil from flowing into the catch basin at Lister and Esther Streets by spreading oil-dry over the area.

Violation and Elimination - Fiske Bros. (con't.)

Sampson Tank Cleaning Co., crew and equipment arrived at approximately 4:30 P.M. and completed the clean-up and removal at 5:30 P.M.

Violation and Elimination - Glamorene Products Corp.
175 Entin Rd., Clifton, N.J.
March 26, 1973 (F. Wendt)

At 11:30 A.M. on March 26, 1973, Mrs. Molnar of Rutherford , N.J. called P.V.S.C. and reported that a white discharge was coming from the Entin Storm Sewer.

Inspector Wendt was assigned and found that the Glamorene Products Corp., was the source of the pollution. Two cases of liquid detergent fell and broke during a delivery to this company. Company employees then hosed down the material into the storm sewer thence the Passaic River.

Mr. Noll, the Plant Manager,was warned that if there was a repetition of this type of accident, he should not wash it into the storm sewer but should apply an absorbent material or vacuum it up and wash it into the sanitary sewer.

Violation and Elimination - City of Hackensack, So. Summit Avenue Storm Sewer
May 17 - December 14, 1973 (J. Perrapato)

While tracing the oil in Millbank Brook back to its source, Mr. Lubetkin noticed a small flow from a storm drain on the Raywin Realty property, which appeared to come from South Summit Avenue, Hackensack. On May 17, 1973, a sample was taken and found to be polluting (very high fecal coliform count, high turbidity, suspended solids, and C.O.D.).

On May 24, 1973, Mr. Richard Galofaro, Sanitarian of the Borough of Lodi, wrote to the PVSC, stating that a joint inspection was conducted by the Lodi and Hackensack Health Departments concerning the sewage discharge into Lodi waterways. A dye test had proved negative, and further testing was to be done by the Hackensack Health Department. Mr. Galofaro requested a copy of the analysis, which was sent to him on June 5, 1973.

Violation and Elimination - City of Hackensack (con't.)

On June 11, 1973, Mr. Lubetkin wrote to the City of Hackensack informing them of the pollution and requesting that they halt the pollution at once.

On June 15, 1973, Mrs. Adelaide Annett, Assistant Health Officer, replied, enclosing a copy of a letter dated June 14, from D. Linfanti, Sanitary Inspector of Hackensack, to Mr. R. Galofaro of Lodi, wherein he stated he was making every effort to locate the source of pollution.

On August 10, 1973 Mr. Lubetkin wrote to Hackensack, asking for information on what will be done to halt the pollution. On August 17, Mrs. Annett replied that dye tests on establishments in the area were done with negative results. She also stated that the sewer in question belonged to the Department of Transportation.

Mr. Lubetkin then notified Mr. E. Post of the N. J. Department of Environmental Protection, that since the pollution emanated from another state agency, that it was being turned over to the NJDEP, as was the PVSC policy, for whatever action the NJDEP deemed necessary to halt the pollution. Mr. Lubetkin also requested that the PVSC be kept up-to-date, in order to report on the matter.

On September 14, 1973, Mrs. A. Annett, Assistant Health Officer, wrote to the PVSC explaining that Mr. Linfanti had been working with Mr. Walsh of the Bergen County Health Department and with Mr. Carley of the State Department of Transportation. Mr. Carley had informed Hackensack that an illegal connection into the pipe would be plugged within the next week or two. The catch basin in front of the Erika Beauty Salon belonged to the County of Bergen, and Mr. Walsh had been trying to locate the source of that pollution.

On October 23, the Department of Health of Hackensack wrote a letter to Mr. F. Dodd, owner of the property at 250-256 South Summit Avenue, informing him that the pollution was traced to the bathrooms of the stores at South Summit Avenue. The owner was advised that the pipe would be plugged in thirty days in order to stop the source of pollution which appeared to be the septic tank system of these stores.

Violation and Elimination - City of Hackensack (con't.)

On November 7, Mr. J. T. Walsh, Chief Sanitary and Plumbing Inspector of Bergen County Health Department wrote to Mr. Linardi Bergen County Road Department, requesting that the Road Department seal off the lines which allows septic waste from private property to enter the Summit Avenue drainage basin.

On November 19, 1973 the 20" line running from the East Side of South Summit Avenue into Millbank Brook was sealed with brick and cement by the Bergen County Sewer Department. It did not hold so it was resealed on Nov. 28, 1973. Inspection on November 29 and 30 indicated that waste was still seeping through.

The line was resealed and on December 14, 1973 Mrs. Annett notified the P.V.S.C. that the South Summit storm drain had been plugged, thus stopping the source of pollution.

Inspector Perrapato confirmed this by inspection on December 18 and 19, 1973.

Violation and Elimination - Harrison Supply Company, 800 Passaic Ave., Harrison, N.J. 07029
October 4, 1973 (J. Colello)

Checking on a complaint, Superintendent Cuccinello and Inspector Colello, on October 4, 1973, saw truck washing with the resultant water running into the Passaic River. A sample of this liquid run-off was analyzed and found to be polluting. Mr. Cuccinello told Mr. K. Phillips, Treasurer and Production Manager, that the discharge was illegal and Mr. Phillips then directed the driver to cease the washing operation.

Mr. Lubetkin confirmed Mr. Cuccinello's statement in a letter, dated October 15, to the Harrison Supply Co., directing them to cease pollution and requesting information as to what would be done to eliminate the violation.

On October 31, Mr. K. Phillips replied that the action of the driver of discharging water from the trucks was against orders and the driver had been warned not to repeat his action.

Violations and Eliminations - Hoffman La Roche, 240 Kingsland Road, Nutley, New Jersey.

January 4, 1973 (W. Fleming)

Mr. Ebeling of Nutley called and advised the PVSC that Nichols Pond was green. Mr. Lubetkin contacted Mr. Fleming who went to Nichols Pond and saw a concentrated green area (Approximately 50 yds. in diameter) in the pond. Mr. Fleming checked with personnel of Hoffman La Roche and discovered that a crew pouring concrete at the old Paisley area had dyed a pipe to help trace its outlet.

They used fluorescein dye which went to Alwood Brook thence Nichols Pond. Fluorescein dye is a harmless dye used for testing, however, it is considered polluting because of the color. Hoffman La Roche was warned not to do dye testing without informing PVSC in advance so that the public could be informed.

* * *

July 27, 1973 (A. Dondero)

On Friday, July 27, at 12:15 p.m., Mr. Ebeling of Nutley called the PVSC and complained of a discoloring in Nichols Pond.

At 12:45 p.m., the inspector arrived at Nichols Pond and noted a brownish color over a distance of approximately 100 yards from a 24" storm drain. The pH of this discharge was 11. With Nutley's Sanitation Department, Mr. Meddis, they traced this to the Hoffman-La Roche, Inc., where Mr. R.H. Kucks, Head of Utilities, was contacted.

Investigation revealed that between 7 a.m. and 9 a.m. during a heavy rainfall on July 27 an estimated 25 gallons of a caustic material was spilled, during delivery, at their tank farm. The caustic material was washed into the plant storm drain system and then overflowed to Nichols Pond due to the heavy flow.

Mr. Kucks informed PVSC that in order to minimize the possibility of discharging any pollutants from their plant to Nichols Pond in the future they are taking the following steps:

1. Closer surveillance will be placed upon diversion of storm waters from plant to Nichols Pond to insure this is done in extreme high flow condition only (heavy rain).

2. An automatic overflow pipe between the storm sewer and the Valley Drain Brook Sewer located upstream of the settling basin will be plugged to prevent overflow at that point during periods of heavy rainfall.

Violation and Elimination - Hoffman-La Roche, Inc., (con't.)

3. Plans will be developed for the installation of a separate chemical sewer along the tank car and tank truck unloading roadway. This sewer will be connected to the process waste sewer and will guarantee that any spill in this area will be carried directly to their neutralization building and the Nutley trunk sewer.

4. The settling basin on the storm water system is scheduled for cleaning the weekend of August 4 which should reduce the water level in this chamber and minimize the possibilities of overflow from the storm sewer into the Valley Drain Brook Sewer.

It is to be noted that as of the end of 1973 all of the above items had been accomplished.

* * *

September 27-28, 1973 (A. Dondero)

On September 27, 1973 at 12:15 P.M., Mr. L. Ebeling of Nutley called the PVSC concerning a discharge into Nichols Pond of an industrial waste.

Inspector Dondero was assigned to check, and he noticed a heavy concentration of a black substance in the Lake Street area, extending approximately 200 yards up and down, and about one half way across the pond. The material emitted an aromatic odor. After notifying the Nutley Board of Public Works, the Inspector traced the material to the Hoffman-La Roche plant.

The Inspector contacted Messrs. DeMarco and Kucks, Plant Engineer and Chief Engineer, and they informed Mr. Dondero that they had a spill at one of their holding tanks at the west end of the plant adjacent to Isabella Street in Clifton. The material was being pumped into the 6,000 gallon holding tank from a 1,000 gallon collection tank, causing an overflow onto a gravel area surrounding the tank. They claimed that most of the spill was controlled and absorbed by the use of sand and absorbent material which is kept at the site. However, an estimated 25-30 gallons of the material reached the roadway pavement and some drained into the storm catch basin, thence to Nichols Pond.

Following the notification to them by Inspector Dondero, plant crews, equipped with vacuum equipment and cheesecloth strainers, worked to remove the chemicals which had collected on the surface of the pond. They estimated that by 9:00 A.M. the next morning approximately 95% of the waste had been removed. They also noted that at 11:00 A.M. fish life was observed in the

Violation and Elimination - Hoffman-La Roche, Inc. (con't.)

pond 50 feet above the dam, and a small school of fish was sighted further upstream.

To prevent a recurrence of this type of accident, personnel handling the transfer of chemicals at the storage tanks were directed not to leave the pump during its operation. In addition, arrangements are being made to install high-level alarms on both storage tanks, which will warn the operator of any potential overflow well in advance of actual fact, so that the pump can be shut down.

Dr. A. J. Paik, Assistant Vice President, confirmed the above in a letter dated September 28, 1973.

On Oct. 25, 1973, Mr. Lubetkin, Mr. Lazzio, Mr. Cuccinello and Mr. Kinder of the PVSC visited the Hoffman La-Roche plant and talked with Dr. A.J. Paik and Mr. Kucks concerning pretreatment, equitable rates etc. Several recommendations were made by PVSC personnel and as a result of this conference Hoffman La Roche agreed to the following:

1. Set up a system for better pH control. They stated that in order to be safe they must provide an acid input at their lime house, Building 47.

2. More effective explosimeter monitoring. They plan to expend this to a 24 hour basis. A procedure sheet has been developed to inform the operator in Building 47 as to what must be done if the L. E. L. on this control instrument reaches 30%.

3. Work on revision to drainage in the Building 104 Chemical Storage area is proceeding so that accidental spills will not reach Nichols Pond.

Violation & Elimination - A. Horowitz & Son,
305 Allwood Road, Clifton, N.J.
November 19, 1973 (L. Cuccinello)

At 1:20 P.M. on November 19, 1973, Supervisor L. Cuccinello received a call from Hoffman La Roche that oil was flowing down Allwood Brook.

Mr. Cuccinello went to the Hoffman LaRoche plant and saw that the oil (contained by a baffle) was apparently a crankcase oil. Mr. Cuccinello back tracked and traced the oil to a catch basin in the parking lot of A. Horowitz & Sons.

Mr. Cuccinello spoke to the Warehouse Manager, Mr. Anthony Sedor and showed him the catch basin, (which still had oil in it).

Violation - A. Horowitz & Son (Con't.)

Discussion with several employees brought out that one of the employees changed the oil in his car over the said catch basin, but nobody would reveal the name of the employee. Mr. Sedor was told his company was responsible since it was done on their property and he was directed to clean the oil trapped behind the baffle in Allwood Brook. This was done. Mr. Cuccinello replied to calls on this subject from Mr. M. Meddis, Health Officer of Nutley and Mr. J. Fernman, N.J.D.E.P.

On November 20, Mr. Lubetkin wrote a letter to the company informing them that they are responsible for the pollution emanating from their property and they should take steps to prevent employees from changing crank case oil and discharging this material into the parking lot catch basin. Mr. Lubetkin thanked them for their immediate cooperation but expected to hear from them as to what steps would be taken to prevent this type of thing recurring.

Violation and Elimination - Inmont Chemical Company, Lodi, New Jersey
April 25- June 20, 1973 (J. Perrapato)

A review of the Industrial Waste Surveys by Mr. Lubetkin indicated that a discharge from this company may be polluting. Inspector Perrapato was directed to take samples of all their discharges. This was done on April 25, 1973. Analysis indicated that the discharge from their pipe #001 was polluting. Mr. Lubetkin wrote a letter to them on May 2, 1973, informing them of the pollution, and directing that they halt this at once.

No reply was received from this company, but Inspector Perrapato reported that this discharge (001) is only storm water during rain, carrying any material it might pick up in the yard. However, due to elevation, a stagnant pond is formed, wherein polluting material may have settled affecting any discharge. At the end of May, the pond had been dredged and cleaned of polluting bottom deposits.

When early June samples still indicated pollution, further cleaning was done until a sample taken on June 20, 1973 tested satisfactorily.

Inmont then engaged Pollution Abatement Consultants to make a site drainage study so as to finally clean up the pond. They disconnected and eliminated the 001 line from the storm sewer and filled in the "pond" to eliminate the

Violation - Inmont Chemical Company (con't.)

However in a letter to PVSC dated December 27, 1973 they noted that after heavy rainfalls, such as December 21, 1973 their site drainage is fine up to the point where Millbank Brook backs up and inhibits drainage. They felt that debris was blocking this stream at a point where it disappears under Fields Plastic Co. PVSC wrote to the N. J. Department of Environmental Protection to find out who was responsible for keeping the stream clear of debris.

Violation and Elimination - Andrew Jergens Company, 1 Franklin Avenue, Belleville, N.J. 07109
October 10 - December 4, 1973 (R. Kordja)

Upon reviewing applications for discharge permits to the U.S.E.P.A. made by industries, Mr. Lubetkin noticed an application for the discharge of boiler blowdown into Second River. Mr. Lubetkin directed the inspection department to get a sample which was analyzed and found to be polluting. Mr. Lubetkin wrote to the Andrew Jergens Company and to the U.S.E.P.A. on October 11, 1973, informing both that this discharge is polluting and cannot be allowed to go to Second River, and PVSC opposed the issuance of a discharge permit.

Mr. Lubetkin suggested to the Andrew Jergens Company that they could install a blowdown tank to catch this discharge and thence mix it with the sanitary or industrial waste (treated if necessary) and discharge it into the sanitary sewer.

On October 12, Mr. Fred Krukiel, Plant Engineer, replied that they were proceeding with the installation of a blowdown tank and hook up to the sanitary sewer, and a schedule showing when this will be accomplished would be forwarded upon receipt of confirmed delivery dates of equipment and contractor's availability. Work was completed December 4, 1973 thus eliminating this pollution.

Violation and Elimination - Kerro Associates, 35 Market Street, Elmwood Park, N.J.
October 2-19, 1973 (J. Perrapato)

On October 2, 1973, Mr. Lazzio, General Superintendent, and Mr. Cuccinello, Supervisor of River Inspection, while checking the bank area, noticed a discharge from an Elmwood Park storm sewer.

Upon investigating further, they discovered this was coming from the Kerro Industrial Park (formerly the East

Violations and Eliminations - Kerro Associates - (con't.)

Paterson, Curtis-Wright Plant). A sample was taken and it was found to be highly polluting.

On October 3, Mr. Lubetkin wrote to the owner of the Industrial Park (Kerro Associates), informing them that the discharge was polluting, and directing them to cease polluting at once.

On October 4, Mr. Lubetkin received a call from Mr. H. Iris of Kerro Associates, wherein he stated that they would like to connect to the Elmwood Park system, but that a letter was required of PVSC before Elmwood Park would allow the connection, and since the Elmwood Park Council was meeting that evening, he requested such a letter. Mr. Lubetkin confirmed the call in a letter dated October 4, informing him that since the material is highly polluting, that it is much preferable for this waste to be put into the sanitary sewer than the river, and that the PVSC have no objection, subject to the following conditions:

(1) As soon as pretreatment standards are passed into law, it would be required for them to pretreat this waste, if necessary, to meet acceptable standards.

(2) As soon as an equitable rate cost recovery system is established, Kerro Associates, or its successors, would have to pay this rate.

(3) Waste and connection must meet all of the legal requirements of Elmwood Park and is acceptable to them.

Kerro Associates was also informed in a supplemental letter dated October 5, that, if for any reason whatsoever, Elmwood Park would not allow Kerro to make the connection in the municipal system, that it would still be the responsibility of Kerro to halt the pollution by another method.

The Borough of Elmwood Park was also informed that they were also responsible to halt the pollution since it came from an Elmwood Park storm sewer.

On October 19, 1973, the connection to the Elmwood Park sanitary sewer system was completed, thus halting the pollution.

(Note: On October 21 an article in "The Sunday Record" indicated that the property had been purchased by Bellemead Development Corp.)

Violation & Elimination - L.J. & M Laplace Company, Leliart Lane Broken water line
Elmwood Park
March 14-15, 1973 (J. Perrapato)

Mr. Lubetkin received a call from the NJDEP stating that they had received a complaint from a citizen that L.J. & M Laplace was discharging acid into the storm sewer.

On March 14, Mr. Lubetkin, together with Messers T. Lazzio, L. Cuccinello and J. Perrapato, checked this company. Inspection revealed a flow going into a ditch going to Fleischer's Brook that later analysis revealed to be highly acid and also contained a C.O.D. of 265 mg/l. The flow was caused by a broken water line which thence picked up pollution from ground spillage as it flowed toward the brook.

The water line was repaired the following day thus halting the immediate pollution, however, the company was directed to have a program of yard paving etc., to contain any pollution which would be caused by a combination of rainfall and spillage of material onto the ground.

Mr. Maurice Laplace promised to hire an engineer to plan the work at once and he promised to keep the PVSC informed as to progress.

Violation and Elimination - Borough of Lodi
Air Relief Valve at Wallington Pumping Station
January 1 to February 14, 1973 Intermittently (J. Perrapato)

There is an air relief valve on the Lodi force main which leads to the PVSC main trunk sewer. This valve (located on the PVSC property at the Wallington Pumping Station) was defective and during times of high flow, discharged not only captured air (as designed to do), but also emitted sewage which ran along the ground to the Passaic River.

Inspector Perrapato spoke to Mr. K. Job, Engineer, and Mr.A. Della Penta, Supt. of Sewers of Lodi several times in the early part of January and was assured repairs would be made.

Since nothing was done, nor did PVSC receive a report, Mr. Lubetkin wrote to the Borough on January 22, 1973 requesting information on what would be done together with a time schedule as to when the Borough would expect the pollution to be halted.

The valve was taken out on February 13, 1973 by the Rapid Meter Service, Inc. of Little Ferry and reconditioned.

Violations and Eliminations - Borough of Lodi - Air Relief Valve (con't

The valve was reinstalled on the line and tested at 2:45 P.M. on February 14, 1973 thus eliminating this source of pollution.

* * *

Break in Force Main
April 4 to April 14, 1973 (J. Perrapato)

On April 4 at approximately 11:00 A.M., the PVSC was informed of a break in the 30 inch sewer running from Saddle Brook Township to Lodi. The break was at Arnot Street, approximately 10 to 15 feet from the Saddle River where the pipe was about 8 feet deep.

On April 4, 5, & 6 attempts were made to locate and excavate the area, but the high river and large flow impeded progress. A sewer clamp was ordered and the repair was scheduled for Sunday April 8. Meanwhile Mr. Lubetkin wrote to the Borough on April 6, directing them to halt the pollution at once, and, in view of the magnitude of the pollution, to schedule as much overtime as was feasible in order to complete the repairs in the shortest length of time.

The rains of Sunday, April 8, prevented repairs that day. On Monday, April 9, a sleeve was installed around the pipe, but the leak remained heavy around the bell of the 30 inch line. Finally on Saturday, April 14, by by-passing the Saddle Brook Pumping Station, the Meta Lane Pumping Station, and the Hendrick's Pumping Station (9A.M. to 4 P.M.), the pressure was relieved enough to complete the repair and lead seal the joints. As of 4 P.M., April 14, the pollution was eliminated.

* * *

Meta Lane Pumping Station
January 30 - February 9, 1973 (J. Perrapato)

The Borough of Lodi has a pumping station located between the foot of Meta Lane and Millbank Brook. This pumping station normally pumps industrial wastes from nearby low lying factories into the Lodi system thence to the PVSC system.

On January 30, 1973, Inspector J. Perrapato discovered the Lodi sewer department pumping sewage from this station into Millbank Brook (a tributary of Saddle River). He was

Violation and Elimination-Borough of Lodi- Meta Lane Pumping Station (con't.)

informed by them that both pumps in the Meta Lane Station had failed and were flooded and it was necessary to pump the sewage out in order to remove the pump motors and make emergency repairs.

The Mollica Electrical Company of Lodi was hired to make the repairs to the motors.

The pumps were installed on February 7, 1973, but one failed to operate properly and was removed.

The station was operating on one pump when a leak in the 12" cast iron pipe on the Outwater Lane Bridge was discovered. Therefore, the pumping station had to be shut down again for this repair.

The leak was repaired on February 9, 1973 at 2 P.M. Although only one pump was in operation, by-passing was halted and the pollution was eliminated as of that date.

October 8, 1973 (J. Perrapato)

In order to repair a valve at the Meta Lane Station, sewage was bypassed from 12:30 P.M. to 3:30 P.M. into the Millbank Brook by the Borough of Lodi.

* * *

Richmond Street Pump Station
April 22, 1973 (J. Perrapato)

At about 2:30 P.M. on Sunday, April 22,1973, a power failure at this pumping station necessitated the by-passing of all sewage to Saddle River. A defective transformer was replaced and normal operation was resumed at 10:15 P.M. on the same day.

Violation and Elimination - Mallinkrodt Chemical Co. Washine Div. - Main St., Lodi, New Jersey
August 14 - 16 1973 (J. Perrapato)

At 8 A.M. on August 14, 1973, an explosion occurred at this plant starting a large fire. Firemen worked actively until August 16 to put the fire completely out. Besides enormous amounts of water, Fire Fighting Foam was brought in to help control the flame. Firemen were even called back until August 18 to put out some smouldering remains.

While trying to control the fire, large amounts of polluting material, including the foam, was washed into

Violation and Elimination - Mallinkrodt Co. (con't.)

Saddle River thence Passaic River. This together with the low flow and hot weather had an effect on the Passaic River. Samples taken August 16 on all points in Saddle River and the Passaic River below the point of the fire showed extremely low dissolved oxygen (2.2 mg/l at 8th St. Passaic) and fish could be seen gasping for air. However by August 21 the oxygen of the river had recovered (7.7 mg/l at 8th St., Passaic).

permitted ?

Violation and Elimination - Marcal Paper Mills, Inc., Elmwood Park, N.J.
June 5, 1972 to February 20, 1973 (J. Perrapato)

This company takes in Passaic River water, treats it, and then uses it in its industrial process. Its industrial waste is treated and returned to the river. The Commissioners have monitored this waste for many years and , except for occasional accidents, have found the quality of this discharge satisfactory, and no problem occurred in this area.

However, in its treatment of the river water, two things occurred. First, the river water was settled in a lagoon,and the silt removed from this water was put back into the river once a week (usually on Sunday) for about one or two hours. Secondly, the treatment of this river water contained filters which were periodically back-washed (about 14 minutes every 1¼ hours). This backwash liquid (also river water material) was also returned to the river.

In the past, since this was material from the river containing no industrial waste, and it was being returned to the river, the practice was allowed. In addition, samples of their discharge had been analyzed and found non-polluting, since evidently the samples were taken by the inspector at times when the filter backwash was not in process. On the few times that pollution was detected (samples taken when backwash in operation), it was usually attributed to other causes (such as spills in loading areas), and Marcal was requested to relay certain sewers and reconnect a loading area catch basin to the sanitary sewer. Marcal was cooperative and , to date, did all the work requested of them.

Upon review of the Industrial Waste Survey Forms, it was realized that even though the filter backwash liquid and settled silt were materials removed from the river, that with higher river standards, the discharge in its concentra-

Violation & Elimination - Marcal Paper Mills, Inc., (con't)

ted form was definitely polluting, and those discharges would have to be halted.

In early June, Mr. Lubetkin called Mr. R. Marcalus and requested a conference with representatives of Marcal. This conference was held on June 9, 1972, and was attended by Mr. E. D. Clark, Technical Director of Marcal, and Mr. Lubetkin, Mr. Kinder, and Mr. Cuccinello of the Commissioners' staff. At this conference the problem was discussed in detail and Mr. Clark was informed of the Commissioners' position that this material could no longer go back to the river, but must be disposed of in another manner. Mr. Clark suggested that this material be repiped to the sanitary sewer. He also said that changes within the plant, conserving and reusing water, would be such that the total volume of sewage to the sewer would not be substantially increased. Mr. Lubetkin agreed that this would halt the pollution and directed Mr. Clark to reduce the proposal to writing, and it would then be submitted to the Commissioners.

On June 14, Mr. R. L. Marcalus wrote to Mr. Lubetkin, acknowledging the discussion and setting a time table whereby the piping etc. would be completed by June 1, 1973. Mr. Lubetkin replied on June 16, and requested that they move expeditiously and have the work completed by March 1, 1973. On June 22, Mr. Marcalus wrote to Mr. Lubetkin, stating that Marcal had been called by the Federal E.P.A. on the same items.

A conference had been had on June 21, and Mr. Marcal informed Mr. R. Flye, Attorney for the E.P.A., that he was under orders by the PVSC to halt this discharge, and had agreed to do so. Mr. Marcal was then informed by the E.P.A. that he would have to build a treatment plant to take care of the filter backwash water and he would have to dispose of the silt from the lagoon in another manner, without returning it to the river.

Another meeting was held between Marcal and the E.P.A. on July 26, 1972. Mr. Marcalus was again told he would have to build a treatment plant to handle this waste and that E.P.A. would not accept discharge into the PVSC's system as a solution.

Marcal wrote a detailed letter to E.P.A. on September 11, 1972, outlining a proposal to eliminate the pollution and asking for an opportunity to discuss it soon. Meanwhile, work had been

Violations and Eliminations- Marcal Paper Mills (con't.)

started to repipe the backwash effluent back to the settling basins.

Since this matter is being handled by the Federal E.P.A., the PVSC would no longer enforce its order, but would continue to report progress (or lack of it) as reports are obtained from E.P.A.

Inspector Perrapato reported that as of February 20,1973, Marcal had completed its piping and installed a recycling pump so that all the filter backwash water was then recycled back to the filter tanks and backwash water was no longer going to the Passaic River, thus eliminating that source of pollution.

The only remaining item is that of the silt removed from the lagoons.

Violation and Elimination - Borough of Maywood
February 5-7, 1973 (J. Perrapato)

On February 5, 1973,an overflow from the Stepan Chemical Co. was detected. This resulted from a clogged Maywood sewer located along Route 17 in Maywood.

The Stepan Chemical Co. shut down its operation at 4 P.M. on February 5, 1973.

At 10:30 A.M. February 6, the line was cleared and Stepan Chemical Co. went back into operation.

Violation and Elimination - Monsanto Company, Pennsylvania Avenue, Kearny, N.J.
January 1972 to October 25, 1973 (J. Colello)

Samples taken from 24" and 27" pipes discharging to the river were found to be polluting. On January 27, Mr. Lubetkin wrote to this company, informing them of their pollution and directing them to cease pollution at once.

On February 9, Mr. J. H. Cannan, Plant Manager, wrote to Mr. Lubetkin stating the 24" sewer was a city sewer used by others besides Monsanto. Mr. Lubetkin replied on February 14, that in addition to the 24" sewer which contained polluting material coming from their company, that the 27" sewer discharging into the Passaic River also contained polluting material.

Violation and Elimination - Monsanto Company (con't.)

On February 22, a conference was held in Mr. Lubetkin's office , at the request of Monsanto. At the conference, it was pointed out to Monsanto that besides the high C.O.D., there was an exceptionally large amount of ortho phosphate being discharged by Monsanto of 1500 mg/l and 2240 mg/l from the 24" and 27" sewers respectively which could not be accepted. They were directed to prepare a program to halt the C.O.D. pollution and to drastically reduce the phosphate discharge. They agreed to have a report on such a program, together with a time table on implementation, presented to the Commissioners by March 10, 1972.

On March 10, another conference was held with Monsanto's officials. Mr. J. H. Canaan presented a program and time table to eliminate the pollution. Generally speaking, they felt the major pollution was caused by underground leaks and by-passing of a reclamation system. They planned to eliminate the leaks by replacing the old pipes with covered concrete lined trenches to be completed July 1, 1972. Another source of pollution was their discharge #002 from the boiler blowdown, which they would correct or divert to the sanitary sewer by September 1972. They also agreed to submit quarterly progress reports (which they subsequently did and which are on file at the PVSC office).

On June 28, Mr. Hartmann of Monsanto submitted a progress report to the Commissioners. The report, complete with photographs, indicated that the program to eliminate leaks from the reclaim system interceptors by replacement of sewers with covered concrete lined trenches was complete; however, a source of phosphate loss was located in a loading area. They expected to find and correct this by October 1, 1972. Subsequent progress report dated December 28, 1972 indicated this had been corrected.

The March 26, 1973 report indicated the heretofore unrecognized source of phosphate to the ground was identified, and capital authorization was obtained to install recovery equipment to eliminate the source. Expected operation was early in second half of 1973. The fifth quarterly report dated July 16, 1973 stated that the recovery unit was being started up.

The original report stated they would verify the accuracy of flow measurements and analytical data. This was completed and confirmed in their first quarterly report (dated June 23, 1972).

Violation & Elimination - Monsanto Company (con't).

The installation of dust collection equipment on the STP loading facility (a significant known source of phosphate into the sewer) was originally scheduled for completion on January 1, 1973. The project was delayed because of late delivery of fans. The July 16, 1973 report stated that they were then installed and operating. Dusting from these loading facilities had been eliminated and a five year state operating permit had been obtained. A third unit was being operated on a temporary permit pending completion of a modification to improve performance on small trucks.

They reported that the flow rate in the plant storm sewer continued to decrease with a 25% decrease from January 1972 to July 1973. The phosphate level in the discharge was slowly decreasing. A study by them on leaching rates indicated that it will take approximately two years of rainfall to reduce the concentration of phosphates in the soil enough to reduce the effluent discharge to 50 mg/l (their report dated March 26, 1973).

On August 23, 1973, Messrs. Lubetkin, Lazzio and Colello met on the site with Mr. Hartmann to review the pollution problem. Mr. Hartmann stated that they did not have any water going to the river and he beleived that they had the pollution under control. He stated that the material going to the river was only the residue that was leaching from the ground with the ground water. He also stated that since they were not using the outlets anymore, he is recommending that they be sealed, thus eliminating the discharge and the pollution once and for all.

It was pointed out to him that the ground water with the phosphate was also getting into the Kearny Pennsylvania Storm Sewer and he would have to have that infiltration inflow sealed to halt that pollution. He said they would also work on that problem.

On September 25, 1973, Mr. Canaan, Plant Manager, and Mr. R.F. Hartmann, Maintenance and Engineering Superintendent, met with Mr. Lubetkin and Mr. Moller of the PVSC, and reviewed the situation. They agreed that they would abandon the plant sewer system and plug it so that no flow would come from Monsanto to the River. They would also disconnect their connections to the 10" line running along Pennsylvania Avenue. They also agreed to bear the cost of a TV scan of the City sewer past their plant after the City cleaned the sewer, so that a TV camera could be put through it. This was confirmed in a letter dated September 26, 1973. Dates were established in a letter dated September 28, 1973. The main storm sewer from their property was to be sealed and re-

Violation & Elimination - Monsanto Company (con't.)

moved by November 30, 1973.

On October 17, 1973, Monsanto informed the U.S.E.P.A. that it would abandon and seal its #001 outlet to the Passaic River before December 31, 1973, and it was therefore withdrawing its application for discharge permit as of January 1, 1974.

Mr. Lubetkin wrote to the Town of Kearny on October 15, informing them of Monsanto's agreement concerning the Town sewer, and Mr. Lubetkin requested that the Town clean the sewer so that televising could be accomplished,

On October 25, the Town Clerk, Mr. S. Aitken, informed the PVSC that the matter had been turned over to the Superintendent of Public Works who would give this job high priority.

Also on October 25, 1973, the Monsanto Company completely sealed its outlet to the Passaic River, thus it is being removed from the violation list.

However since the Kearny, Pennsylvania Avenue sewer still contains a significant amount of phosphate, Kearny is being placed on the violation list until their sewer is cleaned, an internal inspection made and the sewer sealed from the polluting infiltration. (See Violation - Town of Kearny pg. 106).

Violation and Elimination - National Standard Company Athenia Steel Division, 714 Clifton Avenue, Clifton, New Jersey.
August 14, 1972 to August 22, 1973. (F. Wendt)

On July 31, 1972, Mr. F. Sudol of Clifton, called to report polluting discharges from this company into Weasel Brook. The report was given to Inspector Wendt. Mr. Wendt took a sample on August 1, which was not found to be polluting. On the following week (August 7-12 inclusive), Mr. Wendt reported that none of the four outlets from this company were flowing. On Sunday, August 13, Mr. Wendt reported a small clear flow from one outlet.

However, on August 14, Mr. Wendt found that three outlets were flowing and he took samples. Analysis showed the samples were polluting. On August 16, Mr. Lubetkin wrote to National Standard, informing them of the pollution and directing that they cease polluting at once. On August 21, Mr. J.A. Johnson of National Standard replied that they had temporarily diverted the flow from entering the brook,

Violation and Elimination - National Standard Company Athenia Steel Division (con't.)

while they were testing the situation for a permanent solution.

Mr. Lubetkin wrote back on August 23, requesting information as to how the waste was diverted from the brook. They were also told that a wet well,wherein pollutants contaminated the ground, was not considered a satisfactory solution.

On August 29, 1972, they reaffirmed that they were testing for a permanent solution. They expected this in about two months. On October 30, 1972, Mr. Lubetkin wrote to them informing them that two months had elapsed and he desired a report on the situation. On November 3, they replied that they were engineering a system to take care of present and future water standards and as soon as engineering was completed they would give the PVSC expected completion dates.

On November 6, Mr. Lubetkin wrote that their November 3, letter was unsatisfactory being too vague. Mr. Lubetkin requested the date when engineering was expected to be completed. Mr. Johnson replied on November 15, that they expect to have preliminary plans finished by December 15.

On December 14, 1972, at the request of Mr. Johnson, a conference was held in Mr. Lubetkin's office to discuss the permanent solution proposed by National Standard Company. They agreed to connect the boiler house drains to the city sewer and to seal the present cesspools and handle the waste by pumping it to holding tanks for scavenger disposal. They estimated they could complete the work by the end of March 1973. This was confirmed in a letter from Mr. J.A. Johnson dated January 9, 1973.

Since nothing further was heard, Mr. Lubetkin wrote to this company on March 19, 1973, pointing out that March 31 was approaching and the PVSC desired an up-to-date report. Mr. Johnson replied on March 21 that they had run into a major problem concerning precipitation of iron and other solids as the hot spent sulphuric acid cooled, a problem they had not been able to solve as of that date. Mr. Lubetkin replied on April 4, 1973 that their letter was unacceptable to the PVSC as it had no completion date and left the solution of the pollution unresolved.

On April 10, 1973, Mr. Johnson replied that the ground

Violation and Elimination - National Standard Company (con't)

water situation had been awaiting delivery of precast concrete sumps which were scheduled to be delivered on April 13 and they planned to have them installed, piped and pumped by May 11 (on May 4, Mr. Johnson wrote that this was completed on May 3, 1973).

On the second item (disposing of muriatic acid into the ground), the trench work was completed and they expected the fiberglass storage tank to be delivered May 21, and to have it installed with pumps and piping by June 15, and final drain hook-ups to be completed by July 6, 1973.

On July 9, 1973, PVSC received a call and inspection revealed that the cesspool had been sealed, the 6,000 gallon fiberglass storage and piping installed and the system ready for operation. The muriatic acid is now picked up by a contractor for disposal.

On the third item (hot sulphuric acid going into the ground), the 10,000 gallon tank arrived July 27, 1973 and was put in place on July 30 and 31. The installation was completed early August and the sulphuric acid cesspool was sealed.

The spent acid is now pumped into tank trucks supplied by the Iron-Oxide Corporation of Elizabeth, and is used by them to manufacture iron oxide.

Violation and Elimination - Town of Nutley, 24 Inch Storm Sewer to Nichols Pond
July 10 - September 30, 1973 (A. Dondero)

On July 11, 1973 at 10:40 a.m. the PVSC received a call from the Department of Public Works in Nutley, stating that they had received a complaint from Mr. T. Freeman that there was a polluting material discharging into Nichols Pond from a 24-inch storm drain. When Mr. Freeman was contacted by the Inspector, he informed PVSC that he saw a white material coming from the sewer on Tuesday, July 10, at 8 p.m. and notified the municipal police.

Investigation, with Nutley personnel, revealed that a paint contractor, when cleaning his equipment, had dumped the cleaning residue into a storm catch basin located at the corner of Spruce Street and Bloomfield Avenue, Nutley.

While checking the above, the analysis of the sample taken

Violation and Elimination - Town of Nutley (con't)

on July 11 also showed the presence of fecal coliform. This was resampled and checked on July 19 and the Town of Nutley was informed of this development and were checking to locate the source.

Upon attempting to recheck, the Inspector found no flow coming from this sewer. Since it was thought that the flow might be intermittent, a meter was put on the line. Data was inconclusive since a probe of the meter broke on August 14 and a new probe had to be ordered.

During September no flow was observed from this line. It is still possible that an intermittent pollution exists, but in view of the lack of flow the previous two months, this sewer was taken from the violation list as of that date.

Violation and Elimination - Pantasote Company of New York
26 Jefferson Street, Passaic, N.J. 07055
March 14, 1973 - September 30, 1973 (R. Goldstein)

For a considerable period of time, intermittently, oil had been found in Weasel Brook, flowing into the Passaic River. Weasel Brook runs underground for a considerable distance, thus making tracing the source extremely difficult. In addition, during the Route 21 Freeway construction, much of this was masked by construction activity.

On March 14, 1973, Mr. Lubetkin saw some oil passing the Wallington Pumping Station. He traced it back to Weasel Brook, and then contacted Mr. Lazzio and Mr. Cuccinello to locate the source.

By lifting manholes, etc. they were able to finally trace it to the Pantasote Company in Passaic. Inspection of their plant indicated they had two oil pits, wherein oil was supposedly removed from cooling water before discharge to Weasel Brook. These pits contained large amounts of oil, and it was obvious that as slugs of liquid entered the pits, slugs of oil overflowed to the brook.

They were directed by Messrs. Lazzio and Cuccinello to halt the oil discharge at once.

On March 16, Inspector Goldstein again saw oil in the brook and traced it back to a dirty oil pit again.

Violation and Elimination - Pantasote Company (con't).

On March 16, Mr. Lubetkin wrote to this company that the discharge of oil was illegal, not only in violation of New Jersey statutes, but of Federal statutes, and stating that they could be liable for not only civil action, but criminal action as well.

On March 21, Mr. J. B. Hardwick, Manager of Engineering, replied, stating they were quite concerned as they were ecology minded, and they are making a study of their system to determine what caused the intermittent oil discharge. They would make changes in the oil trap to make it more effective.

Upon receipt of the letter, Mr. Lubetkin spoke to Mr. Hardwick on the telephone (March 28), wherein Mr. Lubetkin explained that he felt that it would be much better to separate the clean cooling water (with no oil) from other discharges that might have oil, and that a complete repiping to separate clean water from contaminated water would be the best effective way to solve the problem. Mr. Lubetkin then requested a letter with more details on the abatement.

Mr. Hardwick wrote on March 29, confirming the telephone conversation, and stating that since the building was old, they were attempting to trace all the piping. He also said they had ordered an oil skimming device to put in the sump, and work, to be completed within a week, was being done to assure oil free discharge.

Their plant was scheduled for annual shutdown on June 30, and at that time they planned to make changes on one of the oil sumps to make it more effective.

He also stated that they were studying the entire waste system to isolate the oil sources from the cooling water.

On April 5, 1973, an automatic oil skimmer was installed, thus improving the situation as the oil was removed as it was accumulating.

On May 1, Mr. Hardwick wrote to the PVSC, replying to Mr. Lubetkin's letter of April 12, and supplying a drawing of the oil traps.

He stated that some of his men made an inspection trip through Weasel Brook between Madison Street and a point below Jefferson Street, locating all outfalls coming from their plant,

Violation and Elimination - Pantasote Company (con't.)

and found a major blockage in the underground stream which he stated they had reported.

On June 12, Mr. Lubetkin, together with Messrs. Lazzio, Cuccinello, and Goldstein, visited this company and had a conference with Mr. Hardwick.

Mr. Hardwick informed the PVSC personnel that during a plant shutdown during the end of June and early July, he intended to enlarge the oil traps and to connect an untrapped discharge to a trap. He requested some information on enlarging the oil trap from Mr. Lubetkin.

On June 20, Mr. Lubetkin wrote to Pantasote, confirming the conference and enclosing a sketch of a suggested layout to improve oil removal efficiency.

On Friday, July 27, 1973, Mr. Lubetkin and Mr. Lazzio noticed oil in the Passaic River at 1:00 P.M. near the Wallington Pumping Station. This was traced back to Weasel Brook and thence to the Pantasote Company.

Mr. Hardwick was contacted and he explained that a blockage of some type had caused a back-up of waste to the rear oil separator causing the level to rise, allowing the oil to overflow the baffle. Mr. Hardwick explained that they would raise the baffle so that no matter how high the water level went up, it could not overflow the baffle without covering the ground.

Mr. Lubetkin and Mr. Lazzio examined the new front oil separator and found it vastly superior to the old one, as it was removing a considerable quantity of oil.

During August of 1973, the front oil separator seemed satisfactory, but the rear oil separator seemed to be inadequate as a small amount of oil was still escaping.

No oil could be detected escaping during September; therefore, this violation was considered eliminated.

* * *

November 28, 1973 (R. Goldstein)

At 9:30 a.m. on Thursday, November 28, 1973, a gasket failed on an engine causing it to overheat. The heat set off the automatic sprinkling system which washed resin from the floor to the drains thence to Weasel Brook. The discharge continued for about 30 minutes before it was corrected, halting the pollution.

Violation and Elimination-City of Passaic and United Wool Piece Dyeing and Finishing Co., Passaic, N.J. Leak

July 25, 1972-July 31, 1973 (R. Kordja)

On July 25, a break occurred in the sewerline on the United Wool property. Mr. Lubetkin wrote to the City of Passaic that the line was broken, discharging sewage to the Weasel Brook and directing them to make repairs. On July 27, 1972, Mr. Galik replied that the broken sewer was the responsibility of the United Wool Co.

On July 28, 1972, Mr. Lubetkin wrote to United Wool Dyeing and Finishing Co., informing them of the break and directing them to make repairs. On August 3, 1972, United Wool replied that the maintenance and repair of this line was the responsibility of the City of Passaic.

As Mr. Lubetkin gave a report to Mr. Segreto informing him of the break and that both Passaic and United Wool denied responsibility. Mr. Segreto, on October 3, wrote to both informing them that they both denied responsibility and ownership, and stating that unless some action was taken to end the pollution PVSC would make application to the court for relief. On October 10, Mr. C. Carella, Counsel for United Wool, stated that United Wool had contacted the City of Passaic on a number of occasions informing them of the problem and asserting that the responsibility for maintenance and repair of this line belonged to the City of Passaic by virtue of a contractual agreement dated July 23, 1940.

On October 17, 1972, Mr. A. Galik, City Manager, wrote that it was the City of Passaic's opinion that a line directly from United Wool was leaking and was not the responsibility of the City of Passaic. Mr. Galik also stated that he felt maybe the best course of action to determine the responsibility was to go to court. At the PVSC's board meeting of October 26, 1972, the Commissioners authorized Mr. Segreto to take action to settle this matter.

On October 27, Mr. L. Cuccinello, while looking from Route 21, noticed white colored discharge coming from two 3 inch pipes, coming from the United Wool Building. Mr. Schlenger was contacted and he stated that the pipes were vents under his building and the material coming from the pipe was from the broken sewer under his building.

On November 1, the pipe was emptied and inspected. Mr. Schlenger reported that it was broken badly in several places including under the building so that when sewage flowed in the pipe, it filled the void under the building and flowed out the vent pipes, Later on November 1, a dye was put in the sewer and it came out the vent pipes which appeared to confirm the statement.

Violation and Elimination-City of Passaic and United Wool (con't.)

On November 21, PVSC filed a complaint against United Wool Piece Dyeing and Finishing Company. On November 30, Mr. Schlenger wrote to PVSC, stating he had read about the complaint in the newspaper but had been served no papers. He also reiterated that the pipe was the responsibility of the City of Passaic, and claimed that the break had been caused by the Franklin Construction Company.

On January 12, 1973, United Wool answered the PVSC Complaint and filed a Third Party Complaint against the City of Passaic, allegin it was the responsibility of the City of Passaic to maintain the broken line. On February 1, 1973, the City of Passaic answered the United Wool Complaint, denying responsibility, but it also entered a Fourth Party Complaint against the Franklin Contracting Company and the State of New Jersey, alleging that any damage was caused by activities of Franklin during the construction of Route 21 Freeway in that area. On Friday, March 30, the PVSC received a copy of Franklin Contracting Company's response.

The PVSC made a Motion for Summary Hearing which was set for May 17, 1973. At this hearing, Judge Joelson set June 1, 1973 as the trial date.

On June 1, 1973, Judge Joelson declared the pollution an emergency and ordered the City of Passaic forthwith to make such repairs as were necessary in order to abate and terminate the pollution. The matter of costs and reimbursement was to be settled at a later date.

The City of Passaic hired James Coscone to make the repair. Mr. Coscone worked June 25-28, 1973, inclusive repairing the broken line by replacing four two foot lengths of 15 inch clay pipe and properly capping a 6 inch sanitary line that had been previously cut off but had never been capped. The total cost of the repair was $1,659.00 for the four day repair of the one year pollution.

Violation and Elimination-City of Passaic

November 16, 1973 (R. Goldstein)

At approximately 11:00 A. M. on November 16, 1973, Superintendent Lazzio and Supervisor Cuccinello observed a discharge going into Weasel Brook from the Washington Place storm sewer.

They contacted Mr. Alaimo of the Passaic Sewer Department and informed him of this pollution. Mr. Alaimo stated that the City was aware of the problem and was proceeding to correct a sewer blockage at Hope Avenue and Wahington Place which was causing this overflow.

Work was completed by 2:30 P.M. on the same day, thus halting the pollution.

Violation and Elimination - City of Paterson, Temple Street Storm Sewer
September 11 - 13, 1973 (L. Tateo)

While photographing the sewer outlets, Chief of River Inspection Cuccinello, Assistant Fleming, and Mr. Kinder saw, on September 11, 1973, a discharge of sewage from the Temple Street storm sewer. Inspection of the area revealed an overflow from the Housing Authority sanitary sewer into the storm sewer.

Paterson was contacted and on Wednesday, September 12, 1973, a blockage in the sanitary line, which had caused the backflow and overflow, was discovered. The blockage was removed on September 13 at 11:15 A.M., thus eliminating the pollution. The 12" overflow line was then cut off and sealed.

Violation and Elimination - Podell Industries, 296 Midland Avenue, Garfield, N. J. accident ?
May 29, 1973 (J. Perrapato)

At 4:30 P.M. on May 29, 1973, the Podell Industries had a heavy spill of paint pigment at its shipping platform. A pump was used to pump the diluted pigment to the sanitary sewer; however, slight traces of color were detected in Schroeder's Brook on the following morning. No one could understand how the color reached Schroeder's Brook; however, within a short time the stream was clear again.

* * *

June 29-30, 1973 (J. Perrapato)

On June 29, 1973, the very heavy rains softened cardboard drums so that four of them collapsed and a blue dye washed over the yard. Normally this would drain to a sump and be pumped to the sanitary sewer, but the June 29-30 rain was so heavy that the whole area was flooded and the dye reached Schroeder's Brook.

On Saturday, June 30, Inspector Perrapato attempted to get plant personnel to clean up the area, but was unsuccessful. Personnel of the Borough of Garfield diverted Schroeder's Brook around Dahnert's Pond (at Mr. Perrapato's suggestion) to keep the colored material out of the pond.

Podell personnel worked until 5:00 P.M. Saturday to clean up the yard and had to continue the work the following week; however, after the flood water subsided, no further pollution reached the stream.

Violation and Elimination - Louis Pontiac, Inc., 295 Park Avenue, Lyndhurst, N. J.
March 15 - May 24, 1973 (Intermittent) (F. Cupo)

A small amount of oil coming from the Tontine Avenue storm sewer to the Passaic River in Lyndhurst was traced to this new car dealer by Inspector F. Cupo. They had a floor drain which connected to the storm sewer and it had been the practice to clean parts and flush the oily residue into the floor drain.

Mr. LaCorte, the manager, was informed of the violation on March 15, and stated he had been unaware of this and would instruct his workmen to cease cleaning any auto parts around the drain.

Mr. Lubetkin wrote to the company on March 19, 1973, and informed them that since the floor drain was inside the building and would continue to be a source of intermittent pollution, they should have it reconnected to the sanitary sewer through a proper oil separator. On March 26, Mr. L. DeMassi, President, replied that this was being done and he was in the process of working out details with the Township.

The oil separator was ordered and received about May 10, 1973. On May 24, the work of installing the separator and sealing the floor drain from the Riverside Avenue storm drain and reconnecting it to the sanitary sewer was completed, thus eliminating this pollution.

Violation and Elimination - Poughkeepsie Finishing Corp., 48 East Fifth Street, Paterson, N. J.
August 27 - 31, 1973 (L. Tateo)

On August 27, a sample of the boiler blow down into the Passaic River was analyzed and found to be polluting. This blow down occurred three times each 24 hours, with a discharge of approximately 1,000 gallons per discharge (information on volume from Poughkeepsie). The company was directed to cease the practice of discharging the blow down into the Passaic River at once.

Mr. Frank Centrelli of Poughkeepsie stated that they had already taken the necessary action to comply with PVSC directives, and a blow down tank, with the discharge to the sanitary sewer, was installed August 31, 1973, thus halting the pollution.

Violation and Elimination - Public Service Electric and Gas Company, Maintenance Garage, Coal Street, Newark, N. J., and Dorsey Roofing Co., Harrison, N. J.
January 12, 1973 (J. McLaughlin)

On January 12, 1973, the PVSC received a complaint that workmen on the Public Service property has discarded approximately eight 5-gallon tar cans into the Passaic River. Inspector McLaughlin was sent to check. He contacted Mr. R. Rosenmeier, Superintendent of Public Service, who informed him that employees of a roofing contractor may have been the ones involved.

On January 22, Mr. Lubetkin wrote to Public Service informing them of the violation and asking for details and what would be done by Public Service to prevent a recurrence.

On January 26, Mr. Rosenmeier replied that they have no knowledge of the incident but they did have a private roofing contractor repairing their building at that time; therefore, it was possible to have occurred.

On January 31, 1973, Mr. Lubetkin wrote to Dorsey Roofing Co. informing them that the discarding of cans into the Passaic River was illegal and that they should so inform their employees to discard rubbish in a legal manner in the future.

On February 13, 1973, Mr. D. Dickson of Dorsey Roofing Co. replied that he questioned his men concerning the incident and the men denied discarding the cans into the river. Mr. Dickson stated he also posted a sign and informed all employees that it would result in immediate dismissal if anyone, at any time, discarded any refuse into the Passaic River.

Violation and Elimination - Public Service Electric and Gas Company, Essex Generating Station, Newark, N. J.
June 15, 1973 (J. McLaughlin)

At approximately 11:00 A.M. on June 15, 1973, traces of fuel oil were noticed by Public Service Electric and Gas Company in the circulating water discharge canal. Investigation revealed that the oil came from a pipe trench in the fuel oil room. There was a leak in the oil reclaim tank, and it was estimated that approximately 20 gallons of No. 6 oil leaked to the river. The leaking oil for the most part was contained by a fuel oil barge that was moored at the station dock.

The following agencies were notified at approximately 11:15 A.M. on June 15, 1973:

1. U. S. Coast Guard
2. Passaic Valley Sewerage Commissioners
3. Army Corps of Engineers
4. N. J. Department of Environmental Protection
5. U. S. Environmental Protection Agency

Coastal Service, Inc. arrived on the property at approximately 11:40 A.M. to assist Station personnel in the clean-up. Workmen vacuumed the oil into a tank truck and removed oil stained rocks from the Passaic River bank approximately fifty yards downstream. The clean-up was completed 1:45 P.M. the same day.

2.

Violation and Elimination - Raywin Realty Co., 20 Walnut Street, Clifton, N. J. (violation from 267 So. Summit Avenue, Hackensack)
March 12 - April 12, 1973 (J. Perrapato)

We had been finding oil in Millbank Brook for several months but were unable to trace it to its source because of floods (which pushed the oil back into many blind alleys), considerable debris, and the fact that Millbank Brook has many branches that are underground for considerable distances.

However, in March, after considerable dead ends were investigated, Messrs. T. Lazzio, L. Cuccinello, and J. Perrapato finally traced this to an empty building at 267 South Summit Avenue in Hackensack. As they brought their muddy feet to what they thought would be another dead end, they found a manhole full of oil, and indications of oil leading to a catch basin, which thence discharged to this manhole.

Further investigation revealed that the building was owned by the Raywin Realty Company, and that they were checking the heating system in order to get the building ready for occupancy. At first it was thought that in cleaning the oil lines a large slug of oil had gotten out, causing the pollution. Mr. Schwartz was directed to contract with someone to clean up all the residual oil in the brook.

Mr. Schwartz said he would do everything necessary. He contacted Coastal Services and they came and started the clean-up operation. They also dammed the area near the building and it was then they noticed that as they cleaned the oil, more oil accumulated.

A check revealed that one of the oil lines from one of the tanks was corroded away and the oil was continually leaching from one tank. Hess Oil Company, their former supplier, denied responsibility, so Hennock Oil Company was contacted to repair the tank and replace the line.

The tanks were emptied by the Active Oil Company and the Hennock Oil Company made all repairs, sealing the lines, tank, etc. Coastal Service Co. did the clean-up on the brook.

All work was completed by April 12, 1973, thus eliminating the pollution. Raywin had been very cooperative during the whole episode.

Violation and Elimination - Ridgewood Pollution Control Plant, Prospect Street, Glen Rock, N. J.
March 14-31, 1973 (T. Costello)

The Village of Ridgewood has a pollution control plant which handles the sewage from this village. This activated sludge plant has a design capacity of 5.0 M.G.D. and treats approximately 3.2 M.G.D.

Since the effluent from this plant discharges into Saddle River, a tributary of the Passaic River, it comes under the jurisdiction of the Commissioners, and the Commissioners' personnel sample this effluent on a routine basis. The licensed operator is Mr. John Lagrosa.

During 1973 the PVSC checked the discharge 46 times, of which 3 samples taken on March 14, 21, and 27 were not up to standards, with high C.O.D. and turbidity. Mr. Lagrosa was contacted and he stated that something was coming into the plant system during the last few weeks of March, which was responsible for the condition. Mr. Lagrosa indicated it had stopped at the end of March.

Violations and Eliminations - Royce Chemical Corp., Carlton Avenue, East Rutherford, N. J.
January 22-31, 1973 (F. Cupo)

On January 22, 1973, Mr. Rys noticed that the rain was carrying polluting material from Royce Chemical Corp. to the Carlton Hill storm sewer, thence to the Passaic River. Inspector Cupo was told to check the problem.

Mr. Cupo met with Mr. J. Powell, Plant Engineer, and pointed out areas where material was deposited that would reach the storm sewer during a rainfall. Mr. Cupo later met with Mr. Royce III, who told him that they had two fires recently (on January 17 and January 19, 1973) which was the reason for the poor housekeeping, and that they intended to clean the area as soon as possible.

On January 31, 1973 Inspector Cupo made another inspection and he reported that the company had cleaned the area in question and personnel had been instructed to be careful during loading and unloading procedures.

* * *

February 27, 1973 (F. Cupo)

While checking the Carlton Hill Storm Sewer at 9:20 A.M., on February 27, 1973, Inspector Cupo saw a white substance discharging from this sewer into the Passaic River. Inspector Cupo traced this substance to the Royce Chemical Corp. by walking inside the 66" sewer for about 25 feet at Erie Avenue, Rutherford.

Violations and Eliminations - Royce Chemical Corp. (continued)

Inspector Cupo then went to the office of Royce and contacted Mr. Karl Brennan,Plant Engineer. Mr.Brennan, after being shown the pollution, could not give a reason or tne source. He was directed to find the source and halt the pollution at once.

Later Mr.Brennan informed Inspector Cupo that a breakdown of a circulating pump and a piece of wood, clogging their sanitary sewer, caused the polluting overflow. Fred Heyrick had been called to clean the sewer, and at 3:30 the same day the pollution was abated.

* * *

November 5, 1973 (F. Cupo)

At 7:30 A. M. on November 5, 1973, Mrs. Knofel of East Rutherford called Inspector Cupo and informed him that there was a spill at Royce Chemical. Mr. Cupo arrived at the plant at 8:05 A.M. to check and noticed that Herrick Street had been washed recently, but there were traces of a white material in the street.

Employees of Royce informed Mr. Cupo that there had been a spillage of a zinc sludge from a tank truck at 7:30 A.M. that morning. Mr. K. Brennan, Plant Engineer, informed Mr. Cupo that the spillage occurred due to a hole in the sludge truck. Mr. Brennan was cautioned by the inspector to have his employees check equipment before use so as not to have this type of accident in the future.

Violations and Eliminations - Sandoz Color and Chemical Co., Fair Lawn Avenue and Third Street, Fair Lawn, N. J.
January 16 - April 14, 1973 (T. Costello)

While making an inspection of the Passaic River Bank on January 16, 1973, Inspector Costello noticed seepage from the settling pit of the Sandoz Company going into the Passaic River. Analysis of a sample taken indicated pollution.

On January 22, Mr. Lubetkin wrote to Sandoz, informing them they were polluting and directing them to halt the pollution. On January 23, Mr. R. Hahn, Plant Engineer, replied, stating that they were studying the situation (both short and long term) and would advise the PVSC shortly as to plans to comply with PVSC directives.

On January 25, Mr. Hahn again wrote to the PVSC, stating that as part of their program to halt the pollution, they were proposing a plant process change which would result in a waste of a dissolved solution of sodium sulfate, and Sandoz desired advice as to the acceptability of the waste to the PVSC system. Mr. Lubetkin replied that the sulfate ion in high enough concentration would have an inhibitory effect on biological treatment process; however, PVSC was waiting for Federal guidelines as to pretreatment before it can issue its own regulations. As soon as this was known, PVSC would notify Sandoz.

Violations and Eliminations - Sandoz Color & Chemical Co. (con't.)

Meanwhile, Inspector Costello reported that Sandoz was looking for a waste removing contractor to take the material.

Inspector Costello reported that as of February 8, 1973, Sandoz had halted the discharge of magnesium and calcium sulfate slurry to the settling pit.

On March 19, Mr. Lubetkin again wrote to Sandoz, informing them that they were still polluting, and requesting a schedule of work to halt the pollution. On March 21, Mr. Hahn replied that on February 8 they had changed their process so that no additional slurry had been added to the pit. Work to remove the existing material started on March 26 (with actual pumping started March 28). Mr. Hahn stated that filling in the site was to be completed on June 4, 1973.

Inspector Costello reported that the excavation of the settling basins and the backfilling was completed April 14, 1973, thus eliminating the pollution.

* * *

June 26, 1973 (T. Costello)

On June 26,1973 an operator at Sandoz put a product transfer hose into the overflowing cooling tower water basin, which resulted in Tergitol (Union Carbide trademark for a series of surfactants such as alkylaryl polyethyleneglycol ether) being discharged with the cooling water to the Passaic River via 4 inch pipe (outlet #003)

The duration of the violation was approximately twenty minutes before it was discovered and corrected. Mr. Hahn of Sandoz promised to reprimand the employee for his carelessness.

Violation and Elimination - Speed-Tex Corp., 18-01 Pollitt Drive, Fair Lawn, N. J. Leak
March 23-23, 1973 (T. Costello)

During a routine inspection of Henderson Brook, Inspector T. Costello noted a milky white material in a small depression west of 11th St., Fair Lawn, The brook was clear above and below and there was no indication of the source. A sample was taken, analyzed and found polluting.

With the help of Inspector M. Tomaro, Inspector T. Costello decided to keep an all day watch of various outlets in the vicinity. Suddenly at 12:10 P.M. on March 27, for about 5 minutes, a white discharge was seen coming from a 24 inch storm drain that serviced the Speed-Tex Corp. A sample was taken and Mr. R. Rocco, Plant Manager, was immediately contacted concerning the violation.

Violation and Elimination - Speed-Tex Corp. (con't.)

Inspection revealed that a leaky coil existed in a cooker causing the trouble. Perchloroethylene mixed with polyester, water, etc. was entering the condensate system which had been connected to the storm drain.

The coil was repaired and the line reconnected to the sanitary sewer as of 3:55 P.M. the same day. Although the violation from this company was eliminated, it was possible that another violation from someone else also existed since the times of discharge and amounts did not seem to correspond to the work schedule from this company. The inspector continued to watch this outlet for the remainder of the year, but no further pollution was noted.

Violation and Elimination - Frank Stamato and Company, Inc., Route 46, Lodi, New Jersey
January 4, 1973 (J. Perrapato)

An oil slick in Millbank Brook was traced to the property of the Frank Stamato Construction Company in Lodi. Inspector J. Perrapato informed Mr. Stamato, who in turn informed Mr. Leone, Yard Foreman, to seal off the flow to the brook. Sand was spread over the ground and Mr. Leone promised that they would not change any oil in the yard.

Mr. Lubetkin wrote to this company informing them of the seriousness of the violation, and requested a reply detailing what was being done so that this type of pollution would not recur. On February 9, 1973, Mr. F. Stamato, Jr. replied, denying that any oil from his property reached Millbank Brook. He stated that a section of ground, approximately 50 feet from the brook,which was oil stained but not washing into the brook, had been cleaned and fresh sand placed in this area. Mr. Stamato assured the PVSC they were not allowing any spillage of oil onto or into the ground.

Violations and Eliminations - Stepan Chemical Co., 100 W. Hunter Avenue, Maywood, N. J.
January 17-19, 1973 (J. Perrapato)

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An aromatic odor was detected at Lodi Brook by Inspector J. Perrapato on January 17, at 10:15 A. M. Inspector Perrapato visited the Stepan Chemical Company and was advised that a clog of their sewer during the night had caused a backup, flooding their yard, and thence to the storm sewer. Mr. Perrapato requested they flush the storm line as residual material contained the aromatic odor.

Mr. Lubetkin wrote to Stepan on January 22, concerning this matter and received a reply on January 31, confirming the report of the accidental overflow.

Although the odor was still present on January 19, it was gone by January 24, 1973.

* * *

Violations and Eliminations - Stepan Chemical Co. (con't.)

March 14-31, 1973 (J. Perrapato)

The aromatic odor in Lodi Brook had once again reared its perfumed head. Samples taken from the Stepan Chemical Co. on March 14 and 29 were also aromatic, each having a threshold odor number of 4.

Mr. Swanson of Stepan was notified by the Inspector and Mr. Lubetkin wrote a letter on April 4, informing them of this violation. Mr. Francis replied on April 16, that they had reviewed their plant processes, and since all their plant process effluent was discharged to the sanitary sewer, and only cooling water was discharged into Westerly or Lodi Brooks, he felt it was possible that rain water leached into the soil and picked up the odor, thence it showed up in Lodi Brook.

Samples taken during April and May were generally satisfactory.

Violation and Elimination - Strauss Plastic Company, 111 Gotthardt Street, Newark, N. J.
October 18, 1973 (J. McLaughlin)

Mr. J. Sozauski of Newark reported that he had seen someone from Strauss Plastic Company dumping oil into a catch basin on Jabez St., Newark. Inspector McLaughlin was assigned to investigate. He reported that he spoke to Messrs. Rudolph Strauss and Louis Strauss and was told that a "third shift employee emptied contents from a drum containing hydraulic oil into the catch basin". The oil is drained from the plant machinery once a year and placed into drums for removal and disposal by the Diamond Head Oil Company of Kearny.

Mr. Strauss immediately ordered personnel to remove the oil standing in the catch basin into a drum using a portable pump. The inspector reported the clean-up was satisfactory and completed at 3:40 P.M.

Violation and Elimination - Universal Foods Corp., 810 Mill Street, Belleville, N. J. 07109
March 22-31, 1973 (D. Miele, Jr.)

At about 11 A.M. on March 23, 1973 a large 150,000 gallon tank containing molasses ruptured and collapsed, inundating the area with molasses. Representatives of this company, the Belleville Sanitation Department, and the Belleville Fire Department started to wash the material into storm drains thence Second River, a tributary of the Passaic River, until they were halted by the PVSC.

Mr. Rutter, Plant Manager, was directed by PVSC to make arrangements to have the molasses picked up and disposed of in a legal manner. The Universal Foods Corp. made arrangements with Coastal Services of Elizabeth to clean up the material and cart it away.

Violation and Elimination - Universal Foods (con't)

Meanwhile the N. J. Department of Environmental Protection also ordered the Universal Foods Corp. to halt the pollution of the Passaic River.

Coastal Services stated they would pick up the material but had no way to dispose of it. Mr. Burns of NJSDEP called Mr. Lubetkin and asked if PVSC could take this material at the request of the NJSDEP. The PVSC agreed, since the request was made by the NJSDEP, but that Universal Foods Corp. would have to agree to pay for the disposal costs. Mr. Rutter agreed to this and about 124,500 gallons of dirty molasses was discharged into the PVSC sludge tanks ... making our sludge the sweetest in town.

accident

Violation and Elimination - Vortey Construction Co., 17 Maple Avenue, Great Neck, N. Y.
January 16, 1973 (D. Miele, Jr.)

The Vortey Construction Company was constructing the Commons Apartment located at 1-11 River Road, Nutley, N. J., and while leveling the ground, his bulldozer cracked the 12-inch sanitary line on this property, allowing sanitary waste to empty into the Belleville-Nutley storm ditch, thence to the Passaic River.

The contractor immediately started repairs and completed the job of replacing a four foot section of broken sewer at 3:30 P.M. on the same afternoon (January 16, 1973), and at 4:00 P.M. the by-pass pump was halted. They had been pumping approximately three hours while the repair was being made.

accident

Violation and Elimination - Whippany Paper Board Company, 1 Ackerman Avenue, Clifton, N. J.
July 23 - 25, 1973 (F. Wendt)

On Tuesday, July 24, 1973, at 9:00 A.M., the PVSC were notified by Mr. Collier, Plant Manager, that a break occurred the previous evening (July 23 at 5:30 P.M.) in the sanitary sewer at the main gate of this plant. The waste flowed over the sidewalk and thence into the Passaic River. Work on repair started on Tuesday, July 24, and was finished at 3:00 P.M. on Thursday, July 26. Actually, pollution was halted on Wednesday morning, July 25, when Mr. Collier had the plant shut down in order to make the repair.

accident

Violation and Elimination - Wollen Chemical and Supply Co., 126 Sixth Avenue, Paterson, N. J.
July 6-7, 1973 (L. Tateo)

At 3:50 A.M. on July 6, 1973 a fire broke out at this plant, completely destroying it in a spectacular blaze. Firemen poured water onto the blaze at the rate of 7,000 gallons a minute from 4 A.M. to 7 A.M. and then continued applying water to the ruins at a lesser rate until Saturday, July 7, 1973. The water washed chemicals and dyes into the Passaic River through the Sixth Avenue Storm Sewer, and the colors could be seen 50 to 100 yards downstream.

PART III

The following are reports on polluting discharges still in existence as of the end of the year 1973,into the streams under the jurisdiction of the Passaic Valley Sewerage Commissioners, together with information on what is being done to abate such pollution, and the name of the River Inspector assigned to the pollution.

Violation - City of Clifton - Athenia Storm Sewer
September 1970 to December 31, 1973 (F. Wendt)

The discharge from this sewer which enters into Weasel Brook, near Fornelius Avenue and Lewis Place, contained a significant amount of coliform, although generally not polluting in other parameters. The City of Clifton had supplied the Commissioners with drawings, showing the location of manholes in this sewer and connecting sewers. On Wednesday, July 28, 1971, samples were taken at ten locations along the path of this sewer and analyzed in an attempt to learn the source of the pollution. Unfortunately, unknown to the Commissioners' personnel, there were two parallel storm sewers in this area. These sewers are interconnected at certain points, but these were not shown on the drawings. Mr. Lubetkin visited Clifton's engineering department on August 25, 1971 to discuss these sewer locations. Subsequently new drawings were supplied, showing both sewers.

Samples were taken on September 23, but no definite pattern could be ascertained to locate the source of pollution. During October, the storms prevented proper investigation. During November and December, further samples were taken to discover a flow pattern.

On January 3, 1972, while investigating a complaint of a sewer back-up, the Clifton Sewer Department found a break in an 8-inch sanitary line at the corner of Orono and Sargeant Streets and some sanitary sewage was entering the Athenia Storm Sewer. The broken line was replaced, work being completed on January 7, 1972.

Since subsequent samples indicated pollution (coliform), although lower than before, Mr. Lubetkin wrote to the City of Clifton on February 14, 1972, suggesting that the best way to trace the source of pollution would be the hiring of a laboratory to undertake the work.

Violation - City of Clifton (continued)

On May 19 and again May 22, 1972, letters were sent to the Passaic Valley Sewerage Commissioners concerning the Clifton pollution. Mr. Holster, City Manager, wrote that the City Health Officer, Stuart Palfreyman, was being assigned with men of the Department of Public Works to systematically check the Athenia Storm Drain System in an effort to locate the source of trouble. He felt that there may be some old cesspools which may leak at time of high water table into the storm system.

Mr. Lubetkin spoke to Mr. Holster on the telephone during February 1973, reminding him that progress on the elimination of this pollution was slow. Mr. Holster promised to attend to this at once.

On March 6, 1973, Mr. Lubetkin requested an up-to-date report on the situation from the City of Clifton. On March 14, Mr. J. Jamieson, Engineer from Clifton, replied, stating they had examined the sewer visually and had not found any significant infiltration. He said they were considering a program of chlorine disinfection to aid them in their search. He also said they would continue to strive to correct this problem.

On May 31, Mr. Jamieson called Mr. Lubetkin stating that they had not been successful in locating the source of the pollution and their people think the source may be animal. Mr. Lubetkin told him that on February 28, the PVSC analyzed for both fecal coliform and fecal steptococcus, and the ratio (3.9/1) indicated a high probability of the waste being human waste. Mr. Lubetkin sent Mr. Jamieson a copy of this report, together with a table from EPA literature on Water Microbiology. Mr. Lubetkin stated in his letter that the pollution had been on the PVSC list since September, 1970, and the PVSC felt that the City of Clifton should make every attempt to find and halt the source of the pollution. Mr. Lubetkin suggested that if City personnel cannot do this work, then an outside consultant should be hired to perform the work.

On June 12, 1973, Mr. Jamieson sent a letter to Mr. Holster (copy to Mr. Lubetkin) stating that their Department of Public Works had discovered (and repaired) an 8" sanitary sewer at the intersection of Samuel Avenue and Speer Avenue that had four defective leaking joints. Mr. Jamieson stated that he felt this was a major source of pollution into the Athenia Storm Sewer.

On June 27, Mr. Lubetkin wrote to Mr. Jamieson informing him that samples taken after the repair still indicated a high fecal coliform count (although less than before); therefore, it appeared that there are other sources of pollution still to be found and corrected.

Violation - City of Clifton (continued)

On August 13, 1973, Mr. Lazzio and Mr. Lubetkin met with representatives of Clifton headed by Mr. Lorenz to discuss this matter. When Mr. Lubetkin discovered they were working from old surveys (September 1971; June 1972; and August 1972), he suggested that an up-to-date survey be taken, and a scientific approach be used to locate the source of pollution. Mr. Lubetkin said that the PVSC laboratory would be glad to help with analytical work, but that it was the responsibility of the City of Clifton to do the field work.

On September 10, 1973 Mr. Lubetkin wrote to Clifton outlining the discussions of the August 13 conference, and reiterated that if Clifton was unable to solve the problem with their own forces, it was incumbent upon them to hire outside consultants to aid them to abate this pollution.

On October 2, Mr. Lubetkin wrote to Clifton requesting a report on progress. On October 15, Mr. Holster replied, enclosing a report in which they state they are identifying and tracing all lines involved through the streets, etc. in a"scientific approach" to the problem. As soon as all lines are identified and plotted on a schematic with flows, they will go into a concentrated sampling program to pinpoint the source of pollution.

Mr. Stuart Palfreyman (Health Officer of Clifton) submitted a report giving the status as of the year's end. He stated that they had discovered a number of situations which required further investigation, such as:

(a) A suspected fissure of a sanitary line lying adjacent to storm lateral on Van Houten Avenue.
(b) Another suspected fissure or blockage on Spencer Avenue.
(c) Numerous blockages were found along the line that were clogging flows.
(d) At least two possibilities of backflows due to settling lines and/or obstructions were found.

Plans for the future would progress in four phases:

Phase I: A systematic survey of all City owned lines and the removal of accumulated debris and silt from clogged or obstructed lines. (Estimated to be accomplished by February 28, 1974.
Phase II: Chlorination of entire line to reduce the flora of the line (immediately after Phase I).
Phase III: Biological sampling of the entire line, one step at a time to isolate sections free of fecal coliform, and to locate source or sources.
Phase IV: Make whatever repairs or changes necessary to halt pollution.

Violation-Town of Kearny-Pennsylvania Avenue Storm Sewer

January 1972 to December 31, 1973 (J. Colello)

The 24 inch Pennsylvania Avenue Storm Sewer and the 10 inch sewer adjacent to it are both discharging liquid to the Passaic River containing significant amounts of phosphate.

Since the Monsanto Company, nearby, was a manufacturer of this material, they were held responsible. In the time from January 1972, to October 1973, the Monsanto Company did many things to halt their pollution, including complete recycling of water that formerly went to the Passaic River and sealing off outlets to the storm sewer.

However, the ground is considered saturated with phosphate, and the ground water, with considerable phosphate in solution, continues to enter the storm sewer thence the Passaic River.

The Monsanto Company has agreed to finance a program of TV inspection of the Kearny storm sewer and thence a program to seal it from infiltration coming from the Monsanto plant if the Town of Kearny would clean the storm sewer so that the TV equipment can be put in the sewer.

On October 15, 1973, Mr. Lubetkin wrote to the Town of Kearny informing them of Monsanto's agreement and Mr. Lubetkin requested that the Town do the necessary cleaning so the pollution can be eliminated.

On October 25, 1973, Mr. S. Aitken, of the Town of Kearny, informed the PVSC that the matter had been turned over to the Superintendent of Public Works who would give this job high priority.

Nothing had been done concerning this as of the end of 1973.

Violation-Marcal Paper Mills, Inc., Elmwood Park, N.J.

June 5, 1972 to December 31, 1973 (J. Perrapato)

All pollution from this company to the Passaic River from their industrial wastes and filter back wash water was eliminated February 20, 1973, by their recycling this water (see details in Section II, Violation & Eliminations, page 80 of this Annual Report)

The only problem that remains is the disposal of silt from the settling lagoon where the river water is settled prior to filtration. The silt is presently (once a week, usually on Sunday) pumped back into the Passaic River by the company (as does the PVWC). This is considered polluting and the company had been ordered by PVSC, on June 9, 1972 and USEPA, on June 21, 1972, to halt this practice. Since USEPA is involved the PVSC is not moving against Marcal, but is awaiting results from USEPA, however, since it is in the PVSC's district we will continue to report progress, if any.

Violation-City of Newark (J. McLaughlin)

On February 6, 1970, Judgment was entered against the City of Newark to abate all pollution from the City's Lockwood Street and Blanchard Street Storm Sewers by May 6, 1970, (three months from the date of the Order), and the City of Newark was ordered to remove all pollution from the Meadowbrook Storm Sewer by August 6, 1970 (six months from date of Order). The city awarded contracts to construct a sewer in Lister and Blanchard Street in order to abate pollution from Blanchard Street, Lockwood Street and Brown Street Sewers. Problems occurred during construction due to change of engineers and administration.

The firm of Barnett and Herenchak was hired by the City to take over the engineering and supervision of construction, formerly done by Constrad. Work on this construction started on September 10, 1970, and continued until pollution was eliminated from the Brown Street Sewer.

The City appeared in Court on September 18, 1970, and made application for an extension of time on their pollutions.

On August 25, 1971, Mr. Lubetkin wrote to Mr. S. Friscia, Director of the Department of Public Works, informing him that the pollutions have continued for a considerable period of time. He was also informed that it was the Commissioners' opinion that a considerable portion of the pollution in the lower Passaic River can be attributed to the discharges from these Newark Storm Sewers.

A conference was held on October 13, with Mr. Van Riper and Mr. R. Altiero of Newark, at the Commissioners' office. At this conference the representatives of the City promised to move forward to abate these long standing pollutions.

At the request of the Commissioners at their meeting of December 17, 1971, Mr. Segreto wrote to the Mayor and City Council on December 20, bringing this matter to their attention and pointing out that the City was in default of a court order of 1970, and informing them if the City does not take action to comply with the court order, then an action will be instituted immediately for supplemental relief. Since no response was received, Mr. Segreto again wrote to both the Mayor and City Council on January 5, 1972. On January 19, Mr. F. D'Ascensio wrote to Mr. Segreto, informing him that the letter was brought before the City Council December 30, 1971, and a letter sent to Mayor Gibson, January 3, requesting information from the Mayor . Nothing was heard and a second letter dated January 6, was sent to the Mayor. As of January 19, the City Clerk stated that still nothing had been heard

Violation-City of Newark,cont'd

from the Mayor and the matter had been put on the calendar of the January 25, 1972 Special Conference of the Council.

On January 25, Mr. Roger Lowenstein, Assistant Corporation Counsel, called Mr. Segreto and informed him that the matter had been referred to him and that he would confer with the Engineering Department and contact Mr. Segreto in a few days.

After hearing nothing further, Mr. Segreto filed a Notice of Motion for Supplemental Relief pursuant to the provisions of R.S. 1:10-5 in the Superior Court of New Jersey, Docket No. C-2886-68. Hearing was set for February 18, 1972.

At the hearing Newark admitted it was polluting and their new Chief Engineer, Mr. A. Zack, stated that Newark desired to halt the pollution but they would need time. Judge Ward Herbert ordered that the City of Newark submit to the Court and to the Commissioners within three months from date, a detailed written engineering report containing a specific proposal which Newark will undertake to abate the pollution. The order was dated February 28, 1972.

On June 8, the City of Newark sent a report to the Commissioners entitled " Pollution Report and Abatement Plan of the City of Newark" dated May 26, 1972. Mr. Lubetkin reviewed the report and although this report showed work done, it was not complete in many details, and after discussing the matter with the City, they agreed it was only an interim report to show that they are actively working on this matter.

On July 6, 1972, a conference was held at Newark City Hall. It was pointed out by Newark that a considerable amount of work had been done on these pollutions but they have not complied with the court orders concerning specific proposals, etc. The City stated that it needed more time and would apply to the Court for this.

Since no action on a court application was made, Mr. Segreto, on August 28, 1972, wrote to the City that unless the City moves by the end of the week, the Passaic Valley Sewerage Commissioners would have no alternative but to file motions for supplemental relief.

Violation-City of Newark, cont'd

Receiving no reply, Mr. Segreto again wrote to Mr. Lowenstein outlining in detail the problem, and stating that this would be the last notification and that unless formal application for extension of time was made by the City, the Passaic Valley Sewerage Commissioners would have to apply for supplemental relief.

This was done on September 18, 1972, and the motions were scheduled for October 20, 1972.

In the meantime, in September 1972, the Harrison Ditch Storm Sewer was eliminated from the violation list.

At the request of the City, the motion was adjourned until November 19, 1972, In a letter to Mr. Segreto, dated October 20, a report on progress by Mr. A. Zach dated October 18, was enclosed.

On November 10, 1972, the matter was heard before Judge Herbert. The Court ordered illegal connections be terminated by March 1, 1973, and all pollution be halted by September 1, 1973.

Violations - City of Newark

The following is the status as of the end of December, 1973:

Blanchard Street Storm Sewer - The discharge from this sewer contains oil, high B.O.D., and an exceptionally high C.O.D. The City of Newark, on March 30, 1971, engaged Robinson Pipe Cleaning Company to make a T.V. inspection of this line. However, the City reported that the inspection was frustrating because the storm sewer was not cleaned properly by the contractor and will have to be attempted again at a later date. At the October 13 conference, Mr. Van Riper said he would recommend to the City that a 1300 foot section of this sewer be replaced.

On December 14, Inspector J. McLaughlin reported that a greater quantity than usual of oily liquid was being discharged from this sewer to the river, with a strong petroleum odor. Mr. Van Riper was informed by telephone on December 15, by Mr. Goldberg as soon as he saw the sample, that the sewer had a potential explosive material in it. (This discharge had a C.O.D. of 26,107 mg/l). Mr. Lubetkin confirmed this in a letter dated December 17, 1971 to Mr. Van Riper.

The October 18 report recommended the relaying of 1300 feet of sewer from the bend in the road to the Passaic River in Blanchard Street. Plans and specifications were being prepared and the estimated cost of the work was $250,000.00. If the project could be funded by mid-December the work could be completed by June 1, 1973. The project was not funded.

As of the end of July 1973, Mr. A. Zack reported that plans, contracts and specifications had been prepared and the Division of Sewers was waiting the approval of a Bonding Ordinance by the City Council to provide funds for the project.

The City spent the latter part of 1973 rodding, dragging and jetting the sewer lines for cleaning. They report that the source of the pollution had been determined to be the effluent from the Standard Tallow Company. They have served notices on Standard Tallow Company to cease and desist.

Violations - City of Newark -(Continued)

Brown Street Storm Sewer - Previously, the end of this sewer at Lister Avenue had been sealed and this storm sewer now only drains a one block length from the Passaic River to Lister Avenue. At the time it was sealed (4/23/71), it was assumed pollution was abated since no dry weather flow came from this sewer. However, as the tide goes in and out, it alternately fills and drains this sewer and evidently there is polluting material entering into this sewer again, since samples taken December 14, 1971 and January 25, 1972 showed high C.O.D., turbidity, and were positive to a H2S test.

The June 8 report recommended a relining of this sewer, if feasible. Unfortunately, an inspection made after the report was written revealed a pile had been driven through this sewer. This pile had been driven in 1964, but according to Sherwin-Williams, the break area was boxed with concrete around the pile to give the sewer the same volume outflow. Although the area of the pile may not be the source of the polluting infiltration, it makes it difficult to reline the sewer. The polluting material, a "still bottom" was probably being pumped into the ground from some nearby industry, and the City of Newark's representatives said they were trying to locate the source.

The October 18 report stated they were still studying the feasibility of relining, and that they expected their analysis to be completed within thirty days.

Mr. Zack reported that relining was not feasible. He reported that the plan as of the end of 1972 was to seal and abandon this sewer and relay a new 12" storm line as a substitute.

As of the end of July 1973, Mr. Zack reported that arrangements are in process for a T.V. camera inspection to determine the condition of the line,to be followed by the necessary remedial action.

Monies have been appropriated in the City's 1974 operating budget to clean this sewer and conduct a detailed television survey. It was anticipated that this will be completed by the end of March 1974. Following this Mr. Friscia states that illegal connections,if any, would be terminated,and areas of seepage, if existing,would be pressure grouted.

Violations - City of Newark (continued)

Lockwood Street Storm Sewer - Mr. R. Altiero, Newark's Sewer Department Engineer, reported that on March 22, 1971, visual inspection of the Lockwood Street Sewer, between Lister Avenue and Euclid Avenue, was attempted. However, due to the excessive amount of silt and mud, it was impossible to complete that inspection. This portion of the Lockwood Street Storm Sewer was again cleaned by LaSal Contractors and examined. It was reported at the October 13, 1971 conference by representatives of Newark, that part of this sewer was failing and a consultant would have to be hired for recommendations.

The June 8 report again recommended a visual inspection and manhole to manhole survey be made in order to determine and seal illegal connections. In Mr. Zack's memo of June 6, he stated that it was anticipated this could be accomplished within a two month period.

The October 18 report stated they were listing all industries in the area and work was quite involved.

As of the end of July 1973, Mr. Zack reported that visual inspection of the line continued in order to determine and seal illegal connections and report the condition of the sewer line. He stated progress had been limited due to manpower available, but it was anticipated the survey would be completed in the near future.

Meadowbrook Storm Sewer - Coliform is still being detected at the discharge of this sewer to Second River, but the discharge is generally not polluting in other parameters. During 1971, several pollution connections to this sewer in Belleville were eliminated.

The June 8 report recommended a visual inspection and a flushing of this sewer. It was estimated a two month period was needed.

The October 18 report stated that detailed monitoring and surveillance was required, and cited the use of this sewer by Belleville as a possible source of pollution. They expected to isolate the responsibility for the pollution within two months time. Samples taken by Mr. R. Altiero indicated that a significant pollution was coming from the Belleville area.

As of the end of July 1973, Mr. Zack reported that Newark had eliminated all complaints for which they were responsible, and it was believed that Belleville was now the source of pollution. Mr. Zack also reported that Belleville is of the opinion that Bloomfield was in turn responsible for the pollution. Efforts by Newark to have the matter resolved had not been successful and had been referred to Newark's legal department.

Violations - City of Newark -(continued)

Roanoke Avenue Storm Sewer- Industrial waste continued to discharge into the Passaic River, despite the concrete dam built by the City to keep the sanitary sewer from overflowing into the storm sewer.

On December 30 and 31, 1970, the City attempted to walk and photograph a part of this sewer to determine the source of pollution, with negative results. Mr. Altiero stated the sewer must be cleaned before they could reattempt to locate the source of pollution. He also reported that plans and estimates had been completed for the cleaning of the Roanoke Avenue Sewer between Doremus Avenue and Avenue P. In a letter dated August 31, Mr. Van Riper stated that he hoped for an award of a contract on September 1, 1971. During October, Mr. Van Riper stated that work was awarded to Condrin Construction Company, and work would begin in November. General Sewer Cleaning Company of Long Branch, New Jersey, a sub-contractor for Condrin,began cleaning this sewer on November 8, 1971. Sewer cleaning operations continued through November and the early part of December. On December 9, at approximately 9:30 A.M., the General Sewer Cleaning Co. was preparing to put a TV camera into the sewer when an explosion occurred, injuring three men. The explosion was located in the manhole of the Pitt-Consul Company property. Mr. Altiero reported to Inspector McLaughlin that further sampling would be done by the City, with analyses performed by Edel Laboratories before allowing anyone else to enter the sewer. TV inspection was completed January 10, 1972, and a 10" connection was found west of Doremus Avenue on Pitt-Consul property with a highly polluting discharge (C.O.D. 2662 mg/l). On January 24, samples taken by Inspector McLaughlin showed explosive vapors in this sewer. Mr. Altiero was informed immediately and Mr. Lubetkin sent a follow-up letter to Mr. S. Friscia, Director of the Department of Public Works.

The June 8 report stated that the solution would be to relay approximately 1,200 feet of 54" pipe from Doremus Avenue to Avenue P. No time table was given, but they felt this work cannot be done until 1973.

The October 18 report repeated that the solution would be to relay 1,200 feet of this line.

As of the end of July 1973, Mr. Zack reported that plans and specifications were being prepared for the replacement of approximately 1300 feet of 54" sewer from Doremus Avenue to Avenue P including the preparation of legislation for a bonding ordinance to provide the necessary funds.

Violation - City of Newark - (continued)

Mr. Friscia reported that the City's 1974 Budget includes an appropriation to purchase essential safety and testing equipment to permit inspection since explosive vapors are in this line. They wish to make an inspection to confirm proposed construction as being the necessary way to halt the pollution.

Violation - Borough of North Arlington, Boston Avenue Storm Sewer
March 27, 1973 - December 31, 1973 (F. Cupo)

The Boston Avenue storm sewer is a 48 inch sewer located beside Gem Oil Company. A sample taken March 27 showed a very high fecal coliform count. Since there was a heavy rain just prior to this (March 25-26), another sample was taken April 11, which confirmed a very high fecal coliform and fecal streptococci, with a ratio indicating human pollution. On April 4, 1973, Mr. Lubetkin wrote to the Mayor and Council of the Borough, informing them of the pollution.

On April 18, the Health Officer informed Inspector Cupo that they had the discharge of this sewer independently analyzed and had also found it to be polluting with a high coliform count.

On April 30, Mrs. Ruth Dawson, Health Officer, wrote, requesting copies of results of PVSC analyses, and confirming that samples taken April 11 by North Arlington had a high coliform count.

On May 16, Mrs. Dawson wrote to the PVSC and reported that at a meeting of the Board of Health on May 8, it was decided that the problem of the storm drain polluting the Passaic River was a problem for the Mayor and Council, and in the future all communications will be directly with the Mayor and Council. Councilman A. Cerco stated they were aware of the problem and were taking action.

On June 11, 1973, Borough Clerk, Hedley House, wrote to the PVSC, stating that their Street Superintendent, Mr. L. Harvey, and Borough Engineer, Mr. Neglia, would take several readings on Boston Avenue to determine the exact point of pollution, and that the PVSC would be notified accordingly.

On July 10, 1973 a series of samples taken of various manholes on this storm sewer were analyzed. This analysis indicated that the sample taken from the manhole located on River Road at the center of Boston Avenue was highly polluted while the other samples were satisfactory.

Violation - Borough of North Arlington, - Boston Avenue Storm Sewer (con't.)

During August 1973, it was discovered that the sewer was broken under River Road and infiltration had undermined the sanitary sewer, also under River Road, causing it to break.

On September 6, 1973, the Bergen County Road Department started repair of the sanitary sewer under River Road. During this repair, part of the sewer collapsed on September 7, and the waste was pumped into the Passaic River. On September 11, 1973 all work on the repair of the sanitary sewer was completed; however, samples of the Boston Avenue storm sewer showed pollution still existed. The break in the storm sewer had not been repaired.

On October 24, 1973, since no information was forthcoming on this matter, Mr Lubetkin wrote to North Arlington again informing them of the pollution and requesting information as to what was being done to halt this pollution.

On November 12, 1973, the PVSC was sent a letter from the Borough Clerk, replying to the October 24 letter from PVSC, advising that the Borough is attempting to locate the break in the storm sewer and that Street Superintendent, Mr. L. Harvey, and Borough Engineer, J. Neglia, are working on this project and that PVSC would be notified as soon as information is submitted to the Borough Clerk's office.

On November 13, 1973, the Department of Health of North Arlington requested a current report, including whether or not the storm sewer had been repaired and if it had why was there still contamination from the storm drain.

On November 20, 1973, Mr. Lubetkin replied that the sewer had not been repaired and pollution was still emanating from it. Mr. Lubetkin pointed out that the two are separate items and the pollution is entering the sewer from a point or points above the known break and that the repair of the break (which is important to maintain the integrity of the sewer) would not halt the pollution. The source of the pollution should be found and rectified as a separate item.

Violation - Borough of North Arlington - Boston Avenue Storm Sewer (continued)

On December 18, 1973, Mr. L. Harvey, Street Superintendent, submitted a report summarizing work being done on the River Road sanitary sewer. In this report he stated that they inspected the storm sewer at River Road and Boston Avenue on November 21, 1973, and found no infiltration from the sanitary sewer. He also stated that they were continuing to check with visual and dye tests with the PVSC Inspector when tides were favorable.

Despite this, a sample taken on December 7, 1973 had a fecal coliform count of 88,000 per 100 ml.

Violation - Okonite Company, Wire and Cable Division, Passaic Street, Passaic, N. J.
November 8, 1973 - December 31, 1973 (R. Goldstein)

While reviewing the Okonite outlet permit application, Mr. Lubetkin noted that outlet #018 was a boiler blowdown outlet. Since, generally speaking, boiler blowdown is polluting, and since it is easy to correct where a sanitary sewer is available (install a blowdown tank and discharge it to the sewer), Mr. Lubetkin requested that the Inspection Department check this and get a sample. A sample was obtained, found polluting, and the company was directed by the Inspector to halt this pollution. This order was confirmed in a letter to the Okonite Company by Mr. Lubetkin dated December 13, 1973.

Mr. Strandberg, Plant Manager, replied that they had studied the situation and that it was feasible to install a boiler blowdown tank, with a discharge into the sanitary sewer. He further stated that this could only be done when the boilers were shut down, and they intended to do this during their summer shutdown in 1974. Since the pollution is not great, the PVSC believes this to be reasonable.

Violation - City of Orange, Washington Street Storm Sewer
Intermittent

This is an intermittent violation. E. T. Killam Associates, in a report dated September, 1962, had originally recommended a complete rebuilding of this sewer to eliminate the pollution, but the cost was considered too high by the City. In 1965 the Commissioners took legal action against the City of Orange to halt the pollution.

The City did not build the new system needed, but as a result of the legal action, they plugged openings and repaired cracks to halt the pollution. They also installed a chlorination station, which went into operation May 15, 1966, to disinfect that sewage which they were unable to prevent from leaching into the system.

For a period of time samples were satisfactory, then samples were intermittently bad, as plugs fell out and cracks opened. Repairs are made as needed.

On March 9, 1971, the City informed the Commissioners that they were in the process of trying to obtain Federal and State assistance to improve the City's sanitary sewerage system. On March 22, Mr. Lubetkin wrote to the City, stating that the Commissioners hope that the work for which assistance is being sought will include the rebuilding of the Washington Street Storm Sewer.

On April 26, 1971, Mr. Lubetkin wrote to Mr. DeCarlo, City Engineer, informing him of the problem and asking what program the City of Orange would institute to abate the pollution completely. A letter dated October 22, from the E. T. Killam Associates to the PVSC, explained that the City had made application to the Department of Housing and Urban Development for major improvements to the sewer system and had many meetings on this matter with H.U.D. and the Environmental Protection Agency. The letter stated that the City wished to proceed with this project, but was unable to do so until financial assistance could be obtained from the Federal or State Government.

On November 4, 1971, Mr. Lubetkin wrote to the N. J. Department of Environmental Protection to determine the status of the City of Orange, and received a reply dated November 17, stating that the NJDEP does not have information on progress of H.U.D.'s review. On November 19, Mr. Lubetkin wrote to H.U.D., requesting the status of the City's application. No reply was received; however on December 16, Mr. DeCarlo wrote to the PVSC, informing that they have had meetings with H.U.D. and received a project number which made them optimistic.

On January 7, Mr. DeCarlo wrote that as of January 5, 1972, the City of Orange had filed complete application form H.U.D. Project # WSF-NJ-02-39-1033 for the construction of a new collector system for portions of the City and also to eliminate direct interconnection between sanitary and storm sewers, as well as a program of elimination of sewer infiltration.

Violation - City of Orange, Washington Street Storm Sewer (con't.)

On February 22, Mr. J. Foley of E. T. Killam Associates, Inc. wrote to Mr. Lubetkin, enclosing a letter dated February 9, from the Environmental Protection Agency, stating that based on information they had, they were unable to certify the project at that time as the wastes were discharged into combined sewers, without storm water overflow treatment. However, in order to certify the project, even conditionally, they required additional data on the PVSC.

On March 6, Mr. Lubetkin wrote that any information they desired was available. Mr. Foley replied on March 10, stating that the information was no longer needed by the Environmental Protection Agency to process the application.

On May 24, Mr. DeCarlo wrote to the PVSC, informing them that the Department of Housing and Urban Development had issued a grant in the amount of $1,391,250.00 under Project WSF-NJ-02-39-1033, Orange, N. J. On May 30, Mr. Lubetkin requested information on exactly what work will be done to eliminate the pollution of Second River from the City of Orange.

On September 22, 1972, Mr. DeCarlo wrote to the PVSC stating that plans for the construction of the outlet sewer from Washington Street and North Day Street to the Second River Chamber on Glenwood Avenue were 95% complete. They were hopeful of going out for bids on this part of the project by December 1, 1972.

On January 26, 1973, Mr. DeCarlo wrote to the PVSC explaining they anticipated plans and specifications for the entire project would be completed and submitted to the N.J. Department of Environmental Protection by May 17, 1973, and as soon as approvals were obtained, construction would be started.

Although the project was originally approved by H.U.D. in the middle of 1972, because of problems of rights of way, etc., there were delays. It is expected that the City of Orange will advertise for the internal repairs about March of 1974.

Violation - Tenneco Chemicals, Inc., Intermediates Division, 290 River Drive, Garfield, N. J. 07026

November 29 to December 31, 1973 (J. Perrapato)

The Tenneco Chemical Company has a 2-inch boiler blow down line to the Passaic River. Since, generally speaking, boiler blow downs are polluting, the inspector was asked to check and get a sample.

He confirmed this discharge, and he informed Mr. Dege, Plant Engineer, that it was polluting and should not be discharged to the river. Mr. Lubetkin wrote to the company on December 13, 1973, directing them to halt this pollution.

On December 26, 1973, Mr. A. W. Dege, Plant Manager, replied that they were taking immediate action to purchase and install the necessary equipment to divert the discharge of this material into the sanitary sewer. They expect delivery of the material about March 1, 1974, and expect to have the unit installed by May 1, 1974.